



TOSHIBA



Introduction

Connecting
your TV/DVD

Setting up
your TV/DVD

Using the
TV/DVD's Features

DVD Playback

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OWNER'S MANUAL

LCD TV/DVD

COLORSTREAM[®] HD SRS WOW VIRTUAL DOLBY SURROUND HDMI

THEATERWIDE HD HDTV MONITOR

DVD VIDEO COMPACT disc DIGITAL AUDIO

Owner's Record

The model number and serial number are on the back of your TV/DVD. Record these numbers in the spaces below. Refer to these numbers whenever you communicate with your Toshiba dealer about this TV/DVD.

Model number:

Serial number:

23HLV84

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IMPORTANT SAFEGUARDS

Always read and understand the **PRODUCT WARNINGS and USER DIRECTIONS** that are contained in this manual before attempting to use your television, to help ensure its safe use. Always store this manual near your television for convenient future reference.

Dear Customer,

Thank you very much for purchasing this Toshiba television.

You must carefully read and understand all of the safety instructions contained in this manual before you attempt to use this product in order to avoid potential hazards that could cause bodily injury or property damage or could damage your Television.

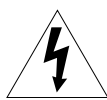
We hope that you are completely satisfied with your Toshiba television and that it will give you long and enjoyable service. We look forward to providing you with additional Toshiba products to serve all of your entertainment needs in the future.

Safety Precautions

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: Handling the cord on this product or cords associated with accessories sold with this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. **Wash hands after handling.**



ENERGY STAR® qualified TV. Products that earn the ENERGY STAR prevent green house gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.

NOTE TO CATV INSTALLERS

This is a reminder to call the CATV system installer's attention to Article 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to grounding system of the building, as close to the point of cable entry as practical. For additional antenna grounding information, see item 17 on page 4.

Child Safety

It Makes A Difference Where Your TV Stands

Congratulations on your purchase!

As you enjoy your new TV, keep these safety tips in mind:



The Issue

- If you are like most consumers, you have a TV in your home. Many homes, in fact, have more than one TV.
- The home theater entertainment experience is a growing trend, and larger TVs are popular purchases; however, they are not always supported on the proper TV stands.
- Sometimes TVs are improperly secured or inappropriately situated on dressers, bookcases, shelves, desks, audio speakers, chests, or carts. As a result, TVs may fall over, causing unnecessary injury.

We Care!

- The consumer electronics industry is committed to making home entertainment enjoyable and safe.
- The Consumer Electronics Association formed the Home Entertainment Support Safety Committee, comprised of TV and consumer electronics furniture manufacturers, to advocate children's safety and educate consumers and their families about television safety.

Tune Into Safety

- One size does NOT fit all! Use appropriate furniture large enough to support the weight of your TV (and other electronic components).
- Use appropriate angle braces, straps, and anchors to secure your furniture to the wall (but never screw anything directly into the TV).
- Carefully read and understand the other enclosed instructions for proper use of this product.
- Do not allow children to climb on or play with furniture and TVs.
- Avoid placing any item on top of your TV (such as a VCR, remote control, or toy) that a curious child may reach for.
- Remember that children can become excited while watching a program and can potentially push or pull a TV over.
- Share our safety message about this hidden hazard of the home with your family and friends. Thank you!



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Tel. 703-907-7600 Fax 703-907-7690
www.CE.org

CEA is the Sponsor, Producer and Manager of the International CES®



FCC compliance information

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Federal Communications Commission (FCC):

This equipment complies with Part 15 of the FCC rules.

FCC Declaration of Conformity Compliance Statement (Part 15):

The Toshiba 23HLV84, LCD TV/DVD Combination complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference that may cause undesired operation.

The party responsible for compliance to these rules is:

Toshiba America Consumer Products, Inc.
82 Totowa Rd. Wayne, NJ 07470.
Ph: (800) 631-3811

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by removing and applying power to the equipment, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications to this equipment not expressly approved by Toshiba could void the user's authority to operate this equipment.

COPYRIGHT: It is permissible to record television programs, films, video tapes and other material only in the event that third party copyrights and other rights are not violated.

CAUTION:

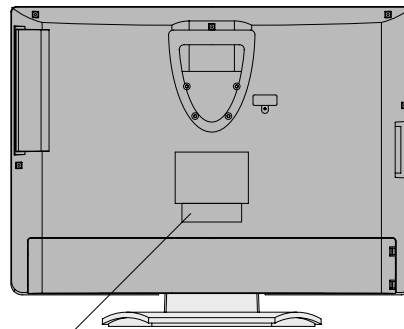
THIS DIGITAL VIDEO PLAYER EMPLOYS A LASER SYSTEM. TO ENSURE PROPER USE OF THIS PRODUCT, PLEASE READ THIS OWNER'S MANUAL CAREFULLY AND RETAIN FOR FUTURE REFERENCE. SHOULD THE UNIT REQUIRE MAINTENANCE, CONTACT AN AUTHORIZED SERVICE LOCATION-SEE WARRANTY PROCEDURE ON PAGES 66-67.

USE OF CONTROLS, ADJUSTMENTS OR THE PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

TO PREVENT DIRECT EXPOSURE TO LASER BEAM, DO NOT TRY TO OPEN THE ENCLOSURE. VISIBLE LASER RADIATION MAY BE PRESENT WHEN THE ENCLOSURE IS OPENED. DO NOT STARE INTO BEAM.

Location of the required Marking

The rating sheet and the safety caution are the rear of the unit.



CERTIFICATION: COMPLIES WITH FDA RADIATION PERFORMANCE STANDARDS, 21 CFR SUBCHAPTER J.

1. READ INSTRUCTIONS

All the safety and operating instructions should be read before the unit is operated.

2. RETAIN INSTRUCTIONS

The safety and operating instructions should be retained for future reference.

3. HEED WARNINGS

All warnings on the unit and in the operating instructions should be adhered to.

4. FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

5. CLEANING

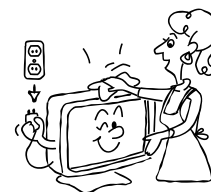
Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Clean only with a dry cloth.

6. ATTACHMENTS

The manufacturer of this unit does not make any recommendations for attachments, as they may cause hazards.

7. WATER AND MOISTURE

Do not use this unit near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.



8. ACCESSORIES

Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious injury, and serious damage to the unit.

- 8A.** An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



DANGER:
RISK OF DEATH, SERIOUS
PERSONAL INJURY, OR
EQUIPMENT DAMAGE.

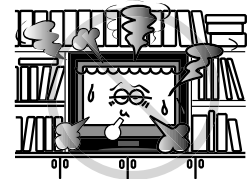
PORTABLE CART WARNING
(symbol provided by RETAC)



S3126A

9. VENTILATION

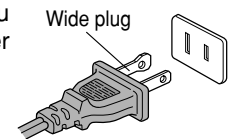
Slots and openings in the cabinet back or bottom are provided for ventilation, and to ensure reliable operation of the unit, and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed near or over a radiator or heat source. This unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

**10. POWER SOURCE**

This unit should be operated only from the type of power source indicated on the rating plate. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company.

11. GROUNDING OR POLARIZATION

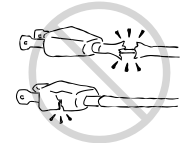
This unit is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet.



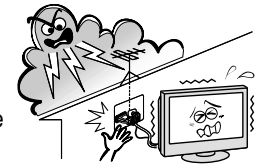
Wide plug

12. POWER-CORD PROTECTION

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

**13. LIGHTNING**

To protect your unit from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the unit due to lightning and power line surges.

**14. POWER LINES**

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall onto or against such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.

15. OVERLOADING

Do not overload wall outlets and extension cords, as this can result in a risk of fire or electric shock.

16. OBJECT AND LIQUID ENTRY

Do not push objects through any openings in this unit, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill or spray any type of liquid into the unit.

17. OUTDOOR ANTENNA GROUNDING

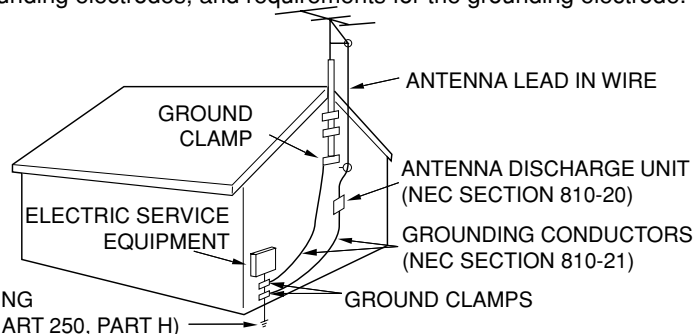
If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges, Section 810 of the National Electrical Code (NEC), ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA
GROUNDING AS PER THE
NATIONAL ELECTRICAL CODE

NEC-NATIONAL ELECTRICAL CODE

S2898A

POWER SERVICE GROUNDING
ELECTRODE SYSTEM (NEC ART 250, PART H)





18. SERVICING

Do not attempt to service this unit yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

For example:

- a. When the power-supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the unit.
- c. If the unit has been exposed to rain or water.
- d. If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
- e. If the unit has been dropped or the cabinet has been damaged.
- f. When the unit exhibits a distinct change in performance, this indicates a need for service.

19. REPLACEMENT PARTS

When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part.

Unauthorized substitutions may result in fire, electric shock or other hazards.

20. SAFETY CHECK

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

21. HEAT

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

22. DISC SLOT

Keep your fingers well clear of the disc slot as it is closing. Failure to do so may cause serious personal injury.

23. CONNECTING

When you connect the product to other equipment, turn off the power and unplug all of the equipment from the wall outlet. Failure to do so may cause a product damage. Read the owner's manual of the other equipment carefully and follow the instructions when making any connections.

24. HEADPHONES

When you use headphones, keep the volume at a moderate level. Using headphones continuously at a high volume may cause hearing damage.

25. LASER BEAM

Do not look into the opening of the disc slot or ventilation opening of the product to see the source of the laser beam. Doing so may cause sight damage.

26. DISC

Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.

27. LCD

Do not press on or jolt the LCD panel. Doing so may cause the LCD panel glass to break and injury may occur. Should the LCD panel be broken and liquid leaks out, do not inhale or swallow it. Doing so may cause poisoning. If you have got it into your mouth, wash it out and consult your doctor. If your hands or clothes have touched it, wipe them with alcohol and a cleaning cloth and then wash them well.

28. NOTE TO CABLE TV SYSTEM INSTALLER

This reminder is provided to call the Cable TV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

ON DISPOSAL

This product contains mercury. Disposal of mercury may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industrial Alliance: www.eiae.org.

Precautions

Notes on handling

- Do not subject the LCD panel to physical shock, such as dropping it. It may cause unit damage and malfunction.
- Retain the original shipping carton and packing materials. For maximum protection when shipping, repack the unit as it was originally packed at the factory.
- Do not use volatile liquids, such as insecticide, near the unit. Do not leave rubber or plastic products in contact with the unit for prolonged periods of time. Doing so will leave marks on the finish.
- The top and rear panels of the unit may become warm after a long period of use. This is not a malfunction.
- When the unit is not in use, always remove the disc and turn off the power.
- If you do not use the unit for a long period, the unit may not function properly in the future. Turn on and use the unit occasionally.

Notes on locating the unit

- Place the unit on a level surface. Do not use it on a shaky or unstable surface such as a wobbling table or inclined stand. The loaded disc may become misaligned and damage the unit.
- When you place this unit near a TV, radio, or VCR, the playback picture may become poor and the sound may be distorted. In this case, place the unit away from the TV, radio, or VCR.

Notes on cleaning

Clean only with a soft, dry, lint-free cloth.

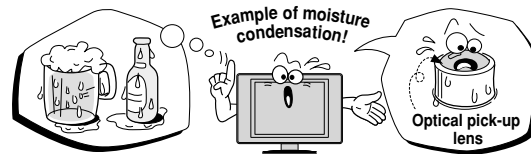
Notes on LCD

- The color LCD is manufactured using extremely high precision technology, but even so may include certain pixels that do not operate properly (that do not light, that remain lit constantly, etc.). We do our best to keep the number of these defective pixels to a minimum, but please understand that they cannot be completely eliminated even with the most advanced manufacturing technologies available today.
- The fluorescent tube which illuminates the panel from the inside will deteriorate with use. When the LCD becomes dim, flickers, or does not illuminate, contact your dealer for replacement.
- The brightness of the LCD monitor differs slightly depending on the viewing angles. Adjust the angle to obtain the best viewing. (The recommended angle is 90 degrees to the monitor.)

Notes on moisture condensation

Moisture condensation damages the unit. Please read the following carefully.

Moisture condensation occurs, for example, when you pour a cold drink into a glass on a warm day and drops of water form on the outside of the glass. In the same way, moisture may condense on this unit's internal optical pick-up lens, one of the most crucial internal parts of the unit.



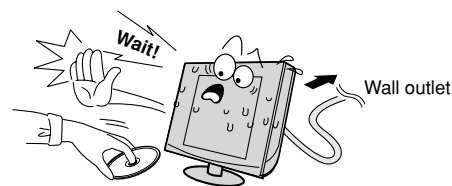
■ Moisture condensation may occur in the following situations:

- When you move the unit from a cold area to a warm area.
- When you use the unit in a room in which the heat was just turned on.
- When you use the unit in an area where cold air from an air conditioner directly hits the unit.
- When you use the unit in a humid area.



■ Never use the unit when moisture condensation may occur.

Using the unit when moisture condensation exists may damage discs and internal parts. Remove the disc, connect the power cord of the unit to the wall outlet, turn on the unit, and leave it for two or three hours. After two or three hours, the unit will have warmed up and evaporated any moisture. Keep the unit connected to the wall outlet and moisture condensation will seldom occur.

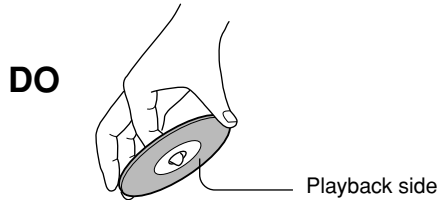




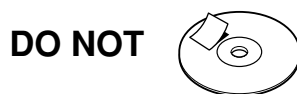
Notes on discs

On handling discs

- Do not touch the playback side of the disc.



- Do not attach paper or tape to discs.



On cleaning discs

- Fingerprints and dust on the disc cause picture and sound deterioration. Wipe the disc from the center outward with a soft, lint-free cloth. Always keep the disc clean.



- Never use any type of solvent such as thinner, benzene, commercially available cleaners, or antistatic spray made for use on vinyl LPs. Use of such liquids may damage the disc.

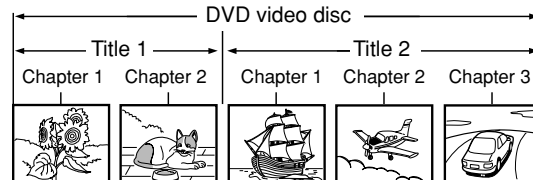
On storing discs

- Never store discs in a place subject to direct sunlight or near heat sources.
- Never store discs in places subject to moisture and dust such as a bathroom or near a humidifier.
- Always store discs vertically in a case. Stacking or placing objects on discs outside of their case may cause warping.

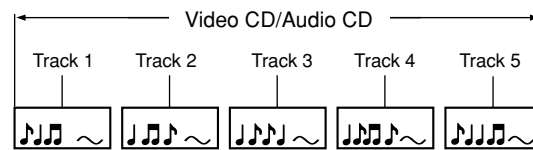
Structure of disc contents

Normally, DVD video discs are divided into titles, and the titles are sub-divided into chapters. Video CDs and Audio CDs are divided into tracks.

DVD video disc



Video CD/Audio CD



Each title, chapter or track is assigned a number, which is called "title number", "chapter number" or "track number" respectively.

Some discs may not have these numbers.

Notes on copyright

The unauthorized recording, use, distribution, or revision of television programs, video tapes, DVDs, and other materials is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision® and is intended for home and other limited pay-per-view uses only, unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited. Macrovision is a registered trademark of Macrovision Corporation.

Introduction

Connecting your TV/DVD

Setting up your TV/DVD




Using the TV/DVD's Features

DVD Playback



Appendix

About this owner's manual

This owner's manual explains the basic instructions of this unit. Some DVD video discs are produced in a manner that allows specific or limited operation during playback. As such, the unit may not respond to all operating commands. This is not a defect in the unit. Refer to instruction notes of discs.

“” may appear on the TV screen during operation. A “” means that the operation is not permitted by the unit or the disc. For example, sometimes it is unable to stop the playback of copyright message of the disc when the STOP (■) button is pressed. Alternatively, the “” may also indicate that the feature is not available for the disc.

Notes on region numbers

The region number of this unit is 1. If region numbers, which stand for their playable area, are printed on your DVD video disc and you do not find  or , disc playback will not be allowed by the player. (In this case, the unit will display a message on-screen.) Some DVDs that have no region code label may still be subject to area restrictions and therefore are not playable.

On Video CDs

This DVD player supports Video CDs equipped with the PBC (Version 2.0) function. (PBC is the abbreviation of Playback Control.) You can enjoy two playback variations depending on types of discs.

- **Video CD not equipped with PBC function (Version 1.1)**



Sound and movie can be played on this DVD in the same way as an audio CD.

- **Video CD equipped with PBC function (Version 2.0)**

In addition to operation of a Video CD not equipped with the PBC function, you can enjoy playback of interactive software with search function by using the menu displayed on the TV screen (Menu Playback). Some of the functions described in this owner's manual may not work with some discs.

Playable discs

This unit can play the following discs.

	Disc Mark	Contents	Disc Size	Maximum playback time
DVD video discs		Audio + Video (moving pictures)	12 cm	Approx. 4 hours (single sided disc)
				Approx. 8 hours (double sided disc)
			8 cm	Approx. 80 minutes (single sided disc)
				Approx. 160 minutes (double sided disc)
Video CDs		Audio + Video (moving pictures)	12 cm	Approx. 74 minutes
			8 cm	Approx. 20 minutes
Audio CDs		Audio	12 cm	Approx. 74 minutes
			8 cm (CD single)	Approx. 20 minutes
<p>The following discs are also available.</p> <ul style="list-style-type: none"> • DVD-R/RW discs of DVD video format • CD-R/CD-RW discs of CD-DA, Video CD, MP3, WMA or JPEG format • Kodak Picture CD and FUJICOLOR CD format <p>Some of these discs may be incompatible.</p>				

- You cannot play discs other than those listed above.
- You cannot play discs of DVD-RAM, DVD-ROM, Photo CD, etc., or non standardized discs even if they may be labeled as above.
- Some CD-R/RWs cannot be played back depending on the recording conditions.
- This unit uses the NTSC color system, and cannot play DVD video discs recorded in any other color system (PAL, SECAM, etc.).

Because of problems and errors that can occur during the creation of DVD software and/or the manufacture of DVD discs, Toshiba America Consumer Products, L.L.C. and Toshiba of Canada, Ltd. cannot guarantee that this player will play every feature of every DVD bearing the DVD logo. As one of the creators of DVD technology, Toshiba DVD players are manufactured to the highest standards of quality and, as a result, such incompatibilities are very rare. If you happen to experience and difficulty playing a DVD on a Toshiba DVD player, please feel free to call our Contact listed in “How to Obtain Warranty Service” (page 66-67).



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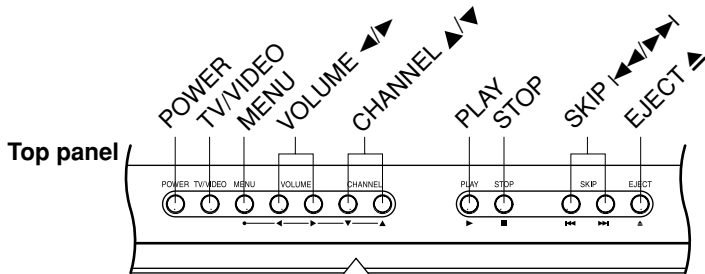
DVD Playback

Appendix

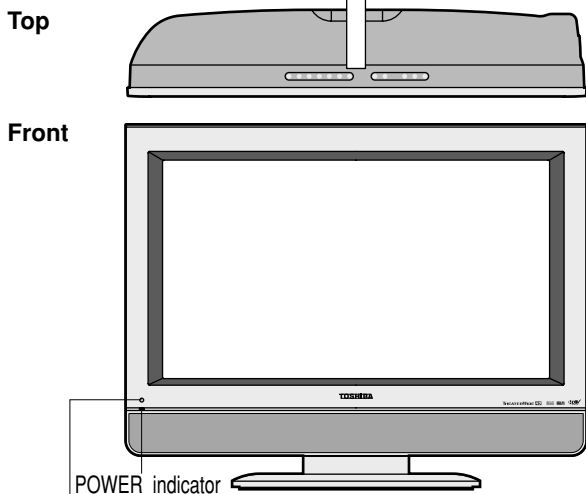
Exploring your new TV/DVD

You can operate your TV/DVD by using the buttons on the top panel or the remote control. The side and back panels provide the inputs to connect other equipment to your TV/DVD.

The STARTING SETUP feature appears the first time you turn on the TV. See page 26 for details.

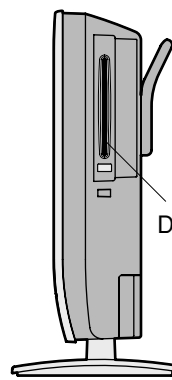


The volume and channel buttons on the top panel can be used as ▲/▼ and ◀/▶ buttons while TV menu is displayed on screen.



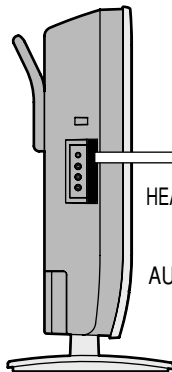
Remote sensor

Right side



Disc slot

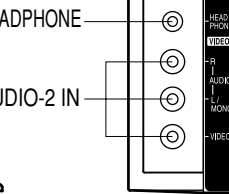
Left side



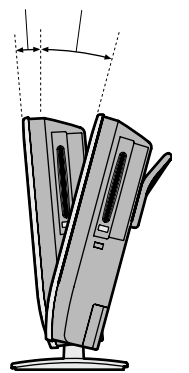
Side panel

HEADPHONE

AUDIO-2 IN

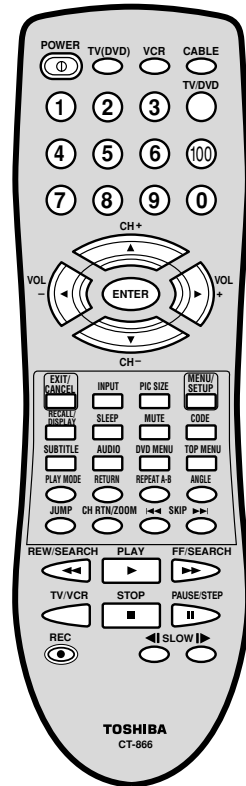


Approx 5° Approx 15°

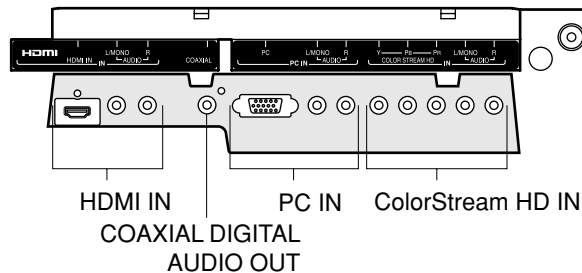


You can adjust the angle of the TV screen 5° forward or 15° backward from vertical. Hold base of TV while adjusting the angle.

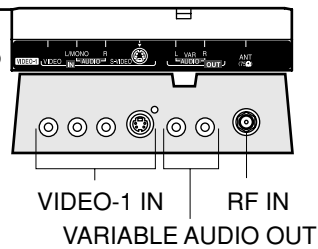
Remote control



Back panel (right)



Back panel (left)





Selecting a location for the TV/DVD

- Place the TV/DVD on the floor or on a sturdy platform in a location where light does not directly hit the screen.
- Place the TV/DVD far enough from the walls to allow proper ventilation. Inadequate ventilation may cause overheating, which may damage the TV/DVD.

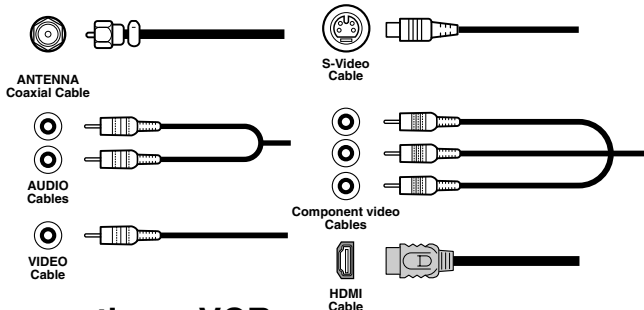
Connecting your TV/DVD

If you haven't connected electronic equipment before, or you have been frustrated in the past, you may wish to read this section. (Cables are not supplied.)

- A coaxial cable is the standard cable that comes in from your antenna or cable converter box. Coaxial cables use "F" connectors.
- Standard A/V (audio/video) cables are usually color coded according to use: yellow for video and red and white for audio. The red audio cable is for the stereo right channel, and the white audio cable is for the stereo left (or mono) channel. If you look at the rear panel of the TV/DVD, you will see that the terminals are color coded in the same manner as the cables.
- S-video cables provide better picture performance than standard video cables. S-video cables can only be used with S-video compatible components.
- Component video cables provide better picture performance than S-video cables. Component video cables can only be used with component video compatible components.
- HDMI (High Definition Multimedia Interface) cable is for use with video equipment that has HDMI output (see page 17).

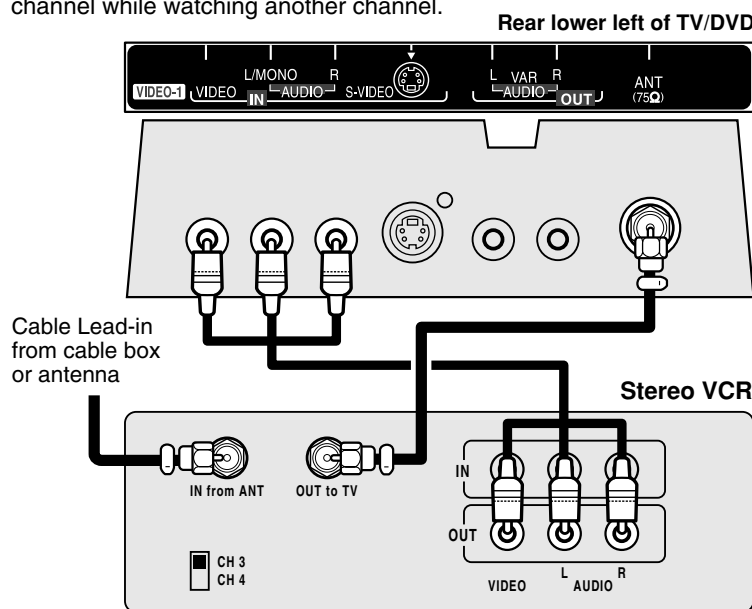


Note:
To prevent equipment damage, do not plug in any power cords until you have finished connecting all equipment.



Connecting a VCR

This connection allows you to watch local channels and video programs, play or record on the VCR while watching TV, and record from one channel while watching another channel.



- You will need:
- two coaxial cables
 - one set of standard A/V cables

Note:
If using a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable. For better picture quality, if your VCR has S-video, you can use an S-video cable instead of the standard video cable. Do not connect a standard video cable and an S-video cable to VIDEO-1 simultaneously.



Connecting your TV/DVD

Connecting a cable converter box or Antenna

This television has an extended tuning range and can tune most cable channels without using a cable company supplied converter box. Some cable companies offer "premium pay channels" in which the signal is scrambled. Descrambling these signals for normal viewing requires the use of a descrambler device, which is generally provided by the cable company.

Option 1: For Subscribers to Basic Cable TV Service

For basic cable service not requiring a Converter/Descrambler box, connect the incoming 75 ohm Coaxial Cable directly to the Antenna Jack on the back of the television.

Option 2: For Subscribers to Scrambled Cable TV Service

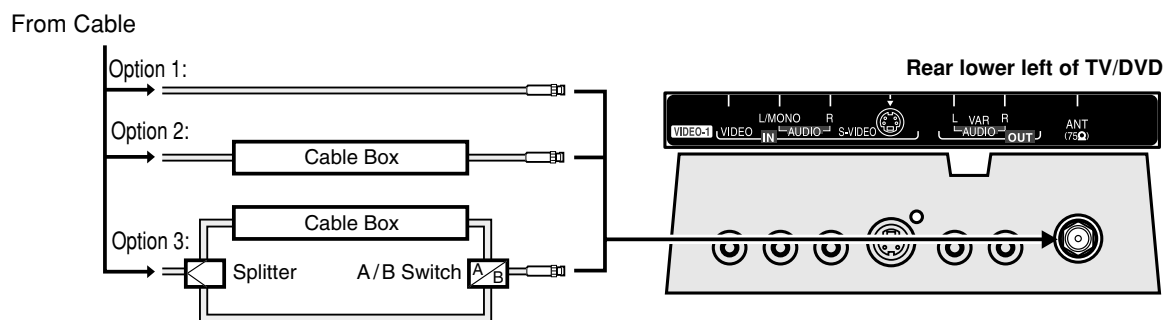
If you subscribe to a cable service that requires the use of a Converter/Descrambler box, connect the incoming cable to the Converter/Descrambler box and connect the output of the box to the Antenna Jack on the back of the television. Follow the connections shown below. Set the television to the output of the Converter/Descrambler box (usually channel 3 or 4) and use the Converter/Descrambler box to select channels.

Option 3: For Subscribers to Unscrambled Basic Cable with Scrambled Premium Channels

If you subscribe to a cable service in which basic cable channels are unscrambled and premium channels require the use of a Converter/Descrambler box, you may wish to use a two-set signal splitter (sometimes called a "two-set coupler") and an A/B Switch box from the cable installer or an electronics supply store. Follow the connections shown below. With the switch in the "B" position, you can directly tune any unscrambled channels on your TV/DVD. With the switch in the "A" position, tune your TV/DVD to the output of the Converter/Descrambler box (usually channel 3 or 4) and use the box to tune scrambled channels.

Note:

When you use a converter box with your TV/DVD, there may be features that you cannot program using the remote control, such as labeling channels, blocking channels, and programming your favorite channels.



Connecting a satellite receiver and a VCR

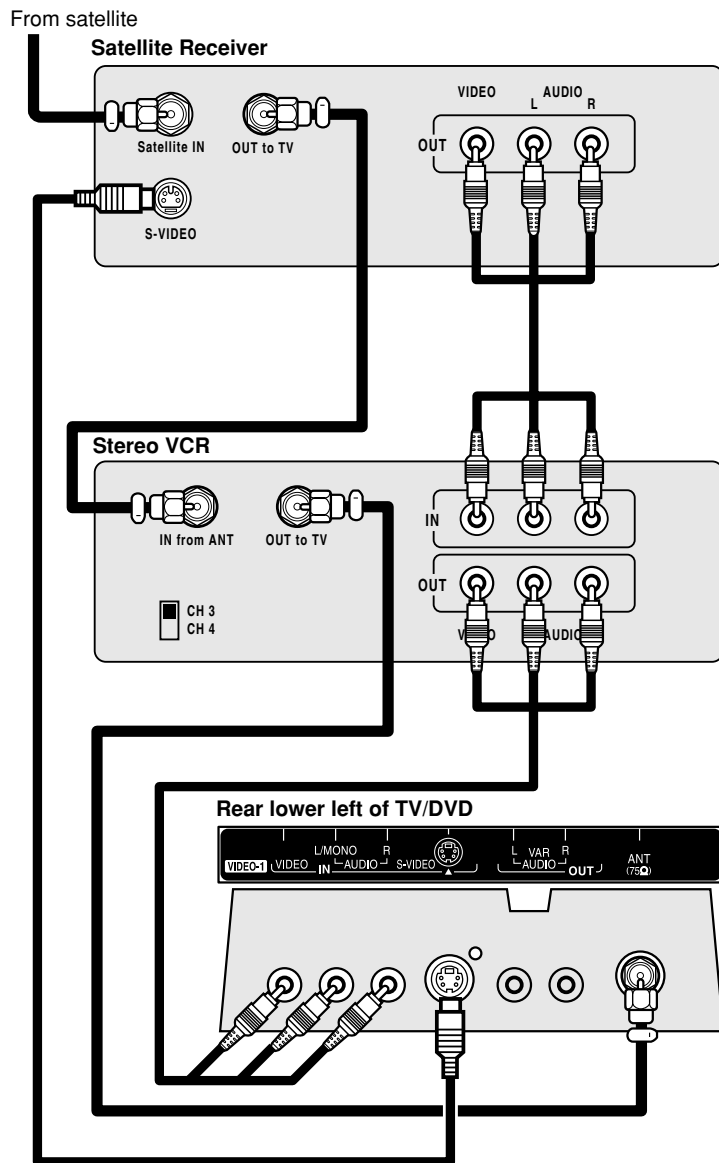
This connection allows you to watch satellite, VCR, or TV programs. You can record from the satellite receiver and TV, as well as record one TV channel while watching another channel.

You will need:

- three coaxial cables
- two sets of standard A/V cables
- one S-video cable

Note:

You can use a standard video cable instead of the S-video cable, but the picture quality will decrease. If you use an S-video cable between the TV/DVD and DVD player/satellite receiver, make the audio connections but remove the standard video cable. Do not connect both an S-video and a standard video cable to VIDEO1 at the same time or the picture performance will be unacceptable.



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Connecting a DVD player with ColorStream® (component video) and a VCR

This connection allows you to watch DVD, VCR, or TV programs and record TV programs. You can record from one source while watching a program from another source. Your TV/DVD is capable of using ColorStream (component video). Connecting your TV/DVD to a component video compatible DVD player, such as a Toshiba DVD player with ColorStream®, can greatly enhance picture quality and performance.

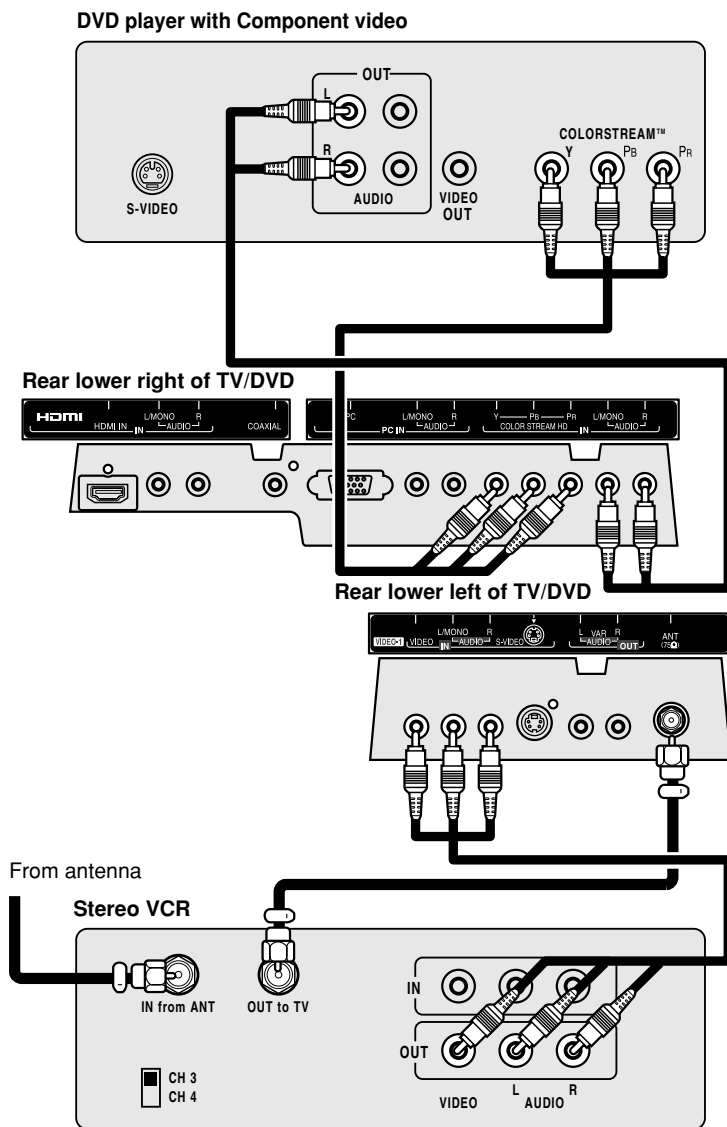
You will need:

- two coaxial cables
- one set of standard A/V cables
- one set of component video cables
- one pair of standard audio cables

Note:

The ColorStream HD jacks can be used with Progressive (480p, 720p) and Interlaced (480i, 1080i) scan systems. A 1080i signal will provide the best picture performance.

The unauthorized recording, use, distribution or revision of television programs, videotapes, DVDs, and other materials is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

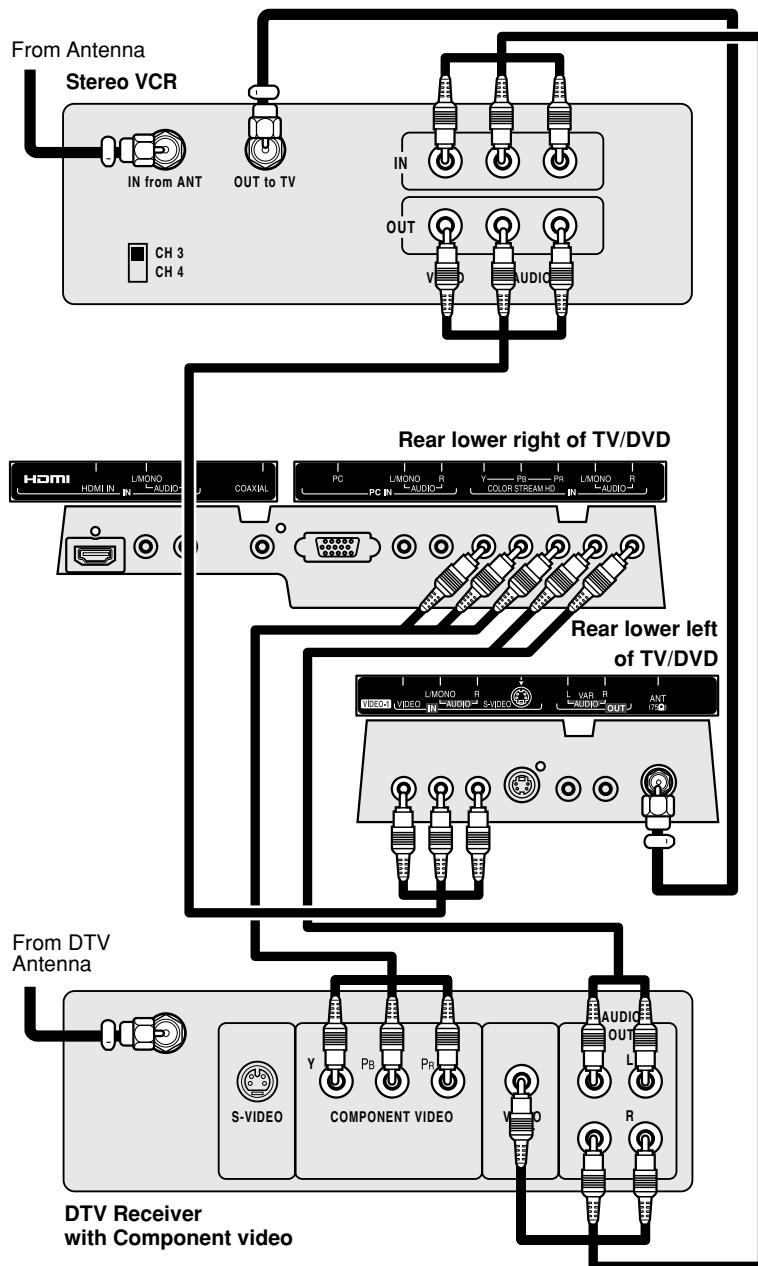


Connecting a DTV receiver/set-top box with ColorStream® (component video) and a VCR

This connection allows you to watch DTV (digital TV), VCR, and TV programs, and record DTV and TV programs. Your TV/DVD has ColorStream® (component video) inputs. Connecting your TV to a DTV receiver with component video can greatly enhance picture quality and realism.

- You will need:
- three coaxial cables
 - two sets of standard A/V cables
 - one set of standard audio cables
 - one set of component video cables

Note:
 For HDMI connection see page 17.
 The ColorStream HD jacks and HDMI jacks can be used with Progressive (480p, 720p) and Interlaced (480i, 1080i) scan systems. If your DTV or HDMI receiver does not have component video, use the S-video and standard audio connections instead. Do not connect both an S-video and a standard video cable to VIDEO1 at the same time or the picture performance will be unacceptable.



The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs, and other materials is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

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- Connecting your TV/DVD
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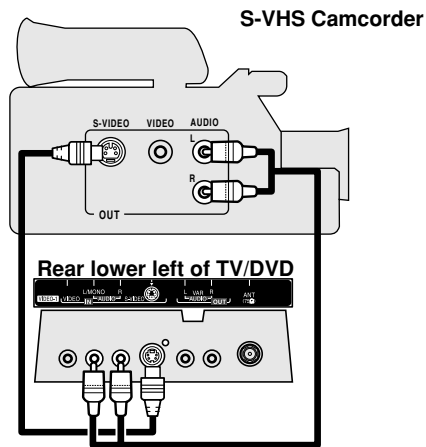
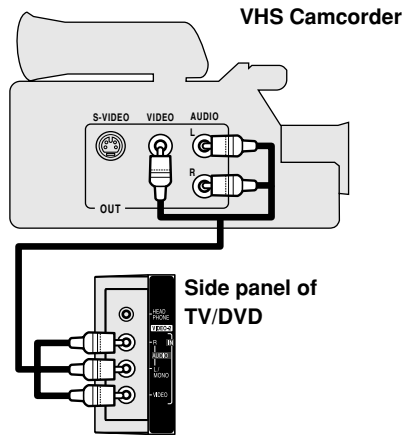
Connecting your TV/DVD

Connecting a camcorder

This connection allows you to watch videos recorded on a camcorder.

You will need:

- one set of standard AV cables



You will need:

- one S-video cable
- one pair of standard audio cables

Note:

For better picture quality, if your camcorder has S-video, you can use an S-video cable (plus the standard audio cables) instead of a standard video cable.

Do not connect both a standard video cable and an S-video cable at the same time, or the picture performance will be unacceptable.

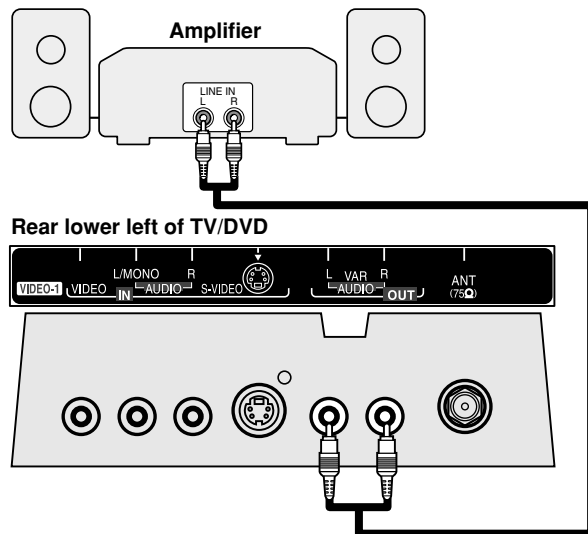
Connecting an audio system

This connection allows you to use an audio amplifier and external speakers, and adjust the audio level using the TV/DVD's remote control.

To control the audio, turn on the TV/DVD and the stereo amplifier, and turn off the TV/DVD's built-in speakers (see "Turning off the built-in speakers" on page 44).

You will need:

- one pair of standard audio cables



Note:

To hear sound when using an external audio amplifier, the volume of both the TV/DVD and the amplifier must be set above 0 (zero).

For example, if the volume of the TV/DVD is set to 0, you will not be able to hear any sound, even if the volume of the amplifier is at its highest level.





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Connecting an HDMI™ or a DVI device to the HDMI input

The HDMI^[1] input on your TV/DVD receives digital audio and uncompressed digital video from an HDMI device or uncompressed digital video from a DVI^[2] device.

This input is designed to accept HDCP^[3] program material in digital form from EIA/CEA-861/861B–compliant^[4] consumer electronic devices (such as a set-top box or DVD player with HDMI or DVI output).

The HDMI input is designed for best performance with high definition video signals. It will accept and display 480i, 480p, 720p and 1080i signals.

Note: The HDMI jack is not intended for connection to and should not be used with a personal computer. For PC connection see page 20.

To connect an HDMI device, you will need:

- one HDMI cable (type A connector)

For proper operation, it is recommended that you use as short an HDMI cable as possible. You should not encounter difficulty if you use an HDMI cable that is shorter than 16.4ft (5m).

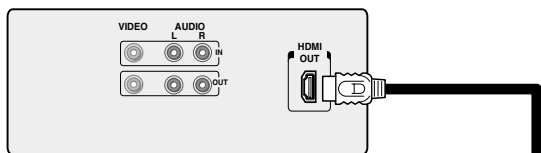
HDMI cable transfers both video and audio. Separate analog audio cables are not required (see illustration below).

You must set the HDMI audio input setting to HDMI in the AUDIO menu (see page 44).

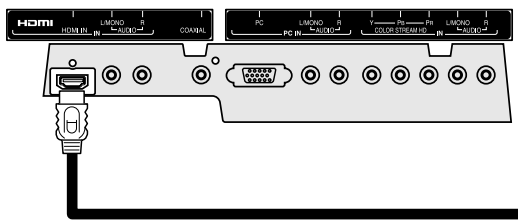
Some CDVs (Video CDs) may not output digital audio signals. In that case, you may hear sound by connecting analog audio cables. If you do use analog audio cables for this reason, you will need to set the HDMI audio input setting to "DVI" to hear the analog audio (see page 44).

Note: *If you connect an HDMI device and analog audio cables (as described in the previous paragraph), and then you play media with digital audio output, to hear digital audio you must set the HDMI audio input setting to "HDMI" (page 44).*

HDMI device



Rear lower right of TV/DVD



HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC.

- [1] HDMI = High-Definition Multimedia Interface.
 - [2] DVI = Digital Video Interface.
 - [3] HDCP = High-bandwidth Digital Content Protection.
 - [4] EIA/CEA-861/861B compliance covers the transmission of uncompressed digital video with high-bandwidth digital content protection, which is being standardized for reception of high-definition video signals.
- Because this is an evolving technology, it is possible that some devices may not operate properly with the TV/DVD.*

To ensure that the HDMI or DVI device is reset properly, it is recommended that you follow these procedures:

- When turning on your electronic components, **turn on the TV/DVD first**, and then the HDMI or DVI device.
- When turning off your electronic components, **turn off the HDMI or DVI device first**, and then the TV/DVD.

To connect a DVI device, you will need:

- one HDMI-to-DVI adapter cable (HDMI type A connector)

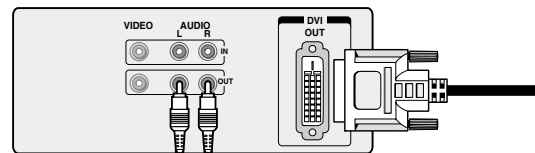
For proper operation, the length of an HDMI-to-DVI adapter cable should not exceed 9.8 ft (3m). The recommended length is 6.6 ft (2m).

- one pair of standard analog audio cables

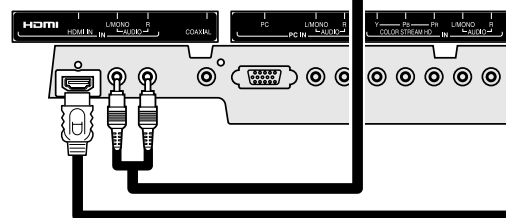
An HDMI-to-DVI adapter cable transfers only video. Separate analog audio cables are required (see illustration below).

You must set the HDMI audio input setting to DVI in the AUDIO menu (see page 44).

DVI device



Rear lower right of TV/DVD





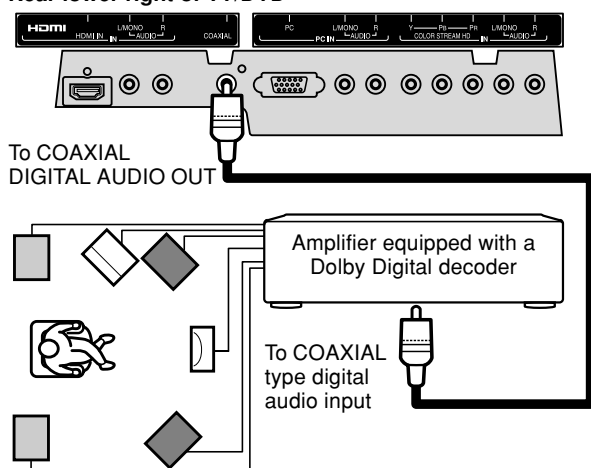
Connecting your TV/DVD

Connecting an amplifier equipped with a Dolby® Digital decoder

Dolby Digital

Dolby Digital is the surround sound technology used in theaters showing the latest movies, and is now available to reproduce this realistic effect in the home. You can enjoy motion picture and live concert DVD video discs encoded via the Dolby Digital recording system with this dynamic realistic sound by connecting the TV/DVD to a 6 channel amplifier equipped with a Dolby Digital decoder or Dolby Digital processor. If you have a Dolby Surround Pro Logic decoder, you will obtain the full benefit of Pro Logic from the same DVD movies that provide full 5.1-channel Dolby Digital soundtracks, as well as from titles with the Dolby Surround mark.

Rear lower right of TV/DVD



Connecting an amplifier equipped with Dolby® Surround Pro Logic

Dolby Surround Pro Logic

You can enjoy the dynamic realistic sound of Dolby Surround Pro Logic by connecting an amplifier and speaker system (right and left front speakers, a center speaker, and one or two rear speakers).

■ With an amplifier equipped with Dolby Digital:

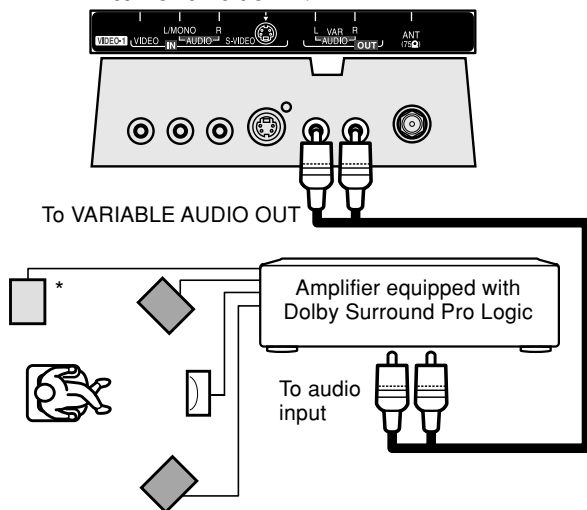
Connect the equipment the same way as described in "Connecting to an amplifier equipped with a Dolby Digital decoder." Refer to that amplifier's owner's manual and set the amplifier so you can enjoy Dolby Surround Pro Logic sound.

■ With an amplifier not equipped with Dolby Digital:

Connect the equipment as follows.

- This connection is only suitable for Video CDs and Audio CDs.

Rear lower left of TV/DVD



You will need:

- one coaxial cables

Notes:

- **DO NOT** connect the COAXIAL DIGITAL AUDIO OUT jack of the TV/DVD to the AC-3 RF input of a Dolby Digital Receiver. This input on your A/V Receiver is reserved for Laserdisc use only and is incompatible with the COAXIAL DIGITAL AUDIO OUT jack of the TV/DVD.
- Connect the COAXIAL DIGITAL AUDIO OUT jack of the TV/DVD to the "COAXIAL" input of a Receiver or Processor.
- Refer to the owner's manual of the connected equipment as well.
- The output sound of the TV/DVD has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the TV/DVD's power cord. If you leave the amplifier power on, the speakers may be damaged.

Manufactured under license from Dolby Laboratories. Dolby, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.

You will need:

- one pair of standard audio cables

Notes:

- Refer to the owner's manual of the connected equipment as well.
- The output sound of the TV/DVD has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the TV/DVD's power cord. If you leave the amplifier power on, the speakers may be damaged.

* Connect one or two rear speakers. The output sound from the rear speakers will be monaural even if you connect two rear speakers.



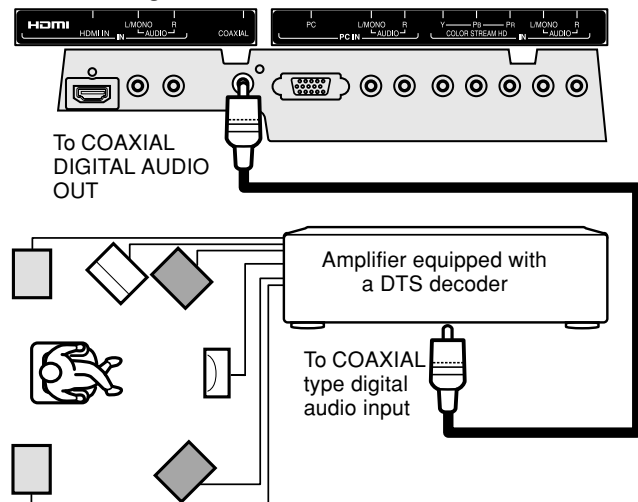
Connecting an amplifier equipped with a DTS® decoder

Digital Theater Systems (DTS)

DTS is a high quality surround technology used in theaters and now available for home use, on DVD video discs or audio CDs.

If you have a DTS decoder or processor, you can obtain the full benefit of 5.1 channel DTS encoded sound tracks on DVD video discs or audio CDs.

Rear lower right of TV/DVD



You will need:

- one coaxial cable

Notes:

- Connect the COAXIAL DIGITAL AUDIO OUT jack of the TV/DVD to the "COAXIAL" input of a Receiver or Processor.
- Refer to the owner's manual of the connected equipment as well.
- The output sound of the TV/DVD has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the TV/DVD's power cord. If you leave the amplifier power on, the speakers may be damaged.

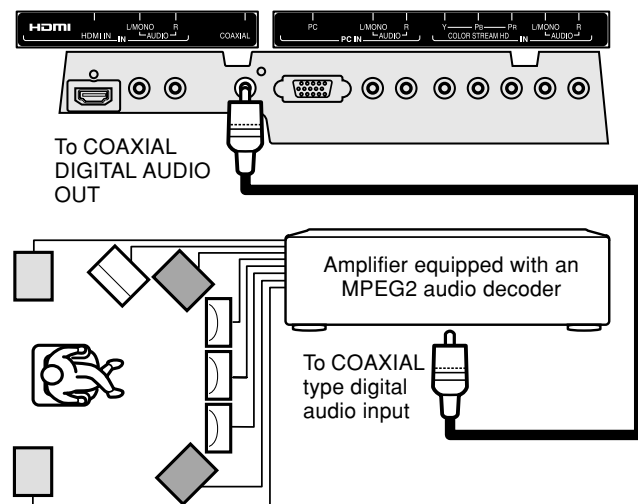
DTS and DTS Digital Out are trademarks of Digital Theater Systems, Inc.

Connecting an amplifier equipped with a MPEG audio decoder

MPEG2 sound

You can enjoy motion picture and live concert DVD video discs encoded via the MPEG2 recording system with dynamic realistic sound by connecting an amplifier equipped with an MPEG2 audio decoder or MPEG2 audio processor.

Rear lower right of TV/DVD



You will need:

- one coaxial cable

Notes:

- Connect the COAXIAL DIGITAL AUDIO OUT jack of the TV/DVD to the "COAXIAL" input of a Receiver or Processor.
- Refer to the owner's manual of the connected equipment as well.
- The output sound of the TV/DVD has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the TV/DVD's power cord. If you leave the amplifier power on, the speakers may be damaged.

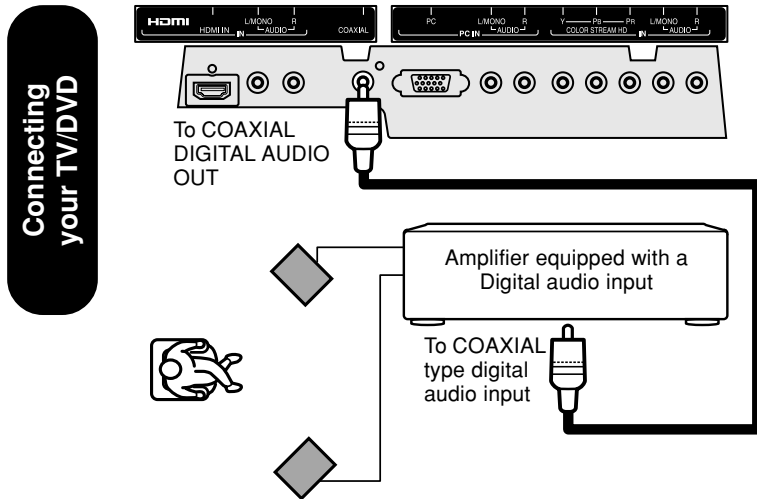


Connecting an amplifier equipped with a digital audio input

2 channel digital stereo

You can enjoy the dynamic sound of 2 channel digital stereo by connecting an amplifier equipped with a digital audio input and speaker system (right and left front speakers).

Rear lower right of TV/DVD



You will need:

- one coaxial cable

Notes:

- PCM audio is limited to DVD or CD playback.
- Connect the COAXIAL DIGITAL AUDIO OUT jack of the TV/DVD to the "COAXIAL" input of a Receiver or Processor.
- Refer to the owner's manual of the connected equipment as well.
- The output sound of the TV/DVD has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the TV/DVD's power cord. If you leave the amplifier power on, the speakers may be damaged.

Connecting a PC (Personal Computer)

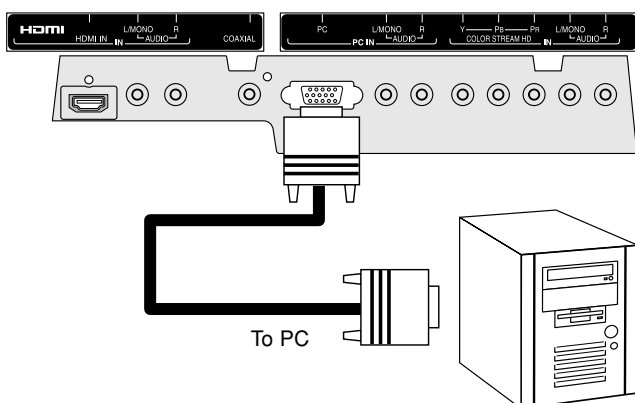
Before you connect this TV/DVD to your PC, change the adjustment of your PC's Resolution and Refresh rate. See "Monitor Display modes" at right.

Connect one end of a (male to male) VGA cable to the video card of the computer and the other end to the VGA connector PC at the back of the TV/DVD. Fix the connectors firmly with the screws on the plug. In case of a Multimedia computer, connect the audio cables to the audio outputs of your Multimedia computer and to the AUDIO L and R connectors of the PC IN jacks of the TV/DVD.

Press INPUT and number button 5 on the remote control to select PC mode.

Switch on the computer. The TV/DVD can be operated as the computer monitor.

Rear lower right of TV/DVD



You will need:

- one VGA cable

Monitor Display modes

MODE	Resolution	Refresh rate
VGA	640x480	60Hz
SVGA	800x600	56.3Hz
SVGA	800x600	60.3Hz
XGA	1024x768	60Hz

To return to TV mode:

Press INPUT again.

Notes:

- The current signal source does not display when you return to TV mode.
- The form of a character of OSD in PC mode differ from TV or DVD mode.

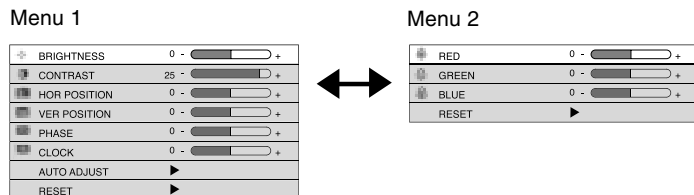


Picture adjustments in the PC mode

There are a number of picture settings you can adjust to optimize the performance of the unit in PC mode.

Press MENU during PC mode.
The PC monitor Menu will appear on the upper left of the TV screen.

Each time you press MENU, the PC Monitor Menu will change as follows:



When you are finished adjusting the picture, press EXIT.

Example: Adjust the contrast.

1. During PC mode, press MENU once. The Menu 1 appears on the TV screen.
2. Press ▲ or ▼ to select CONTRAST.
3. Press ◀ or ▶ to adjust CONTRAST.
4. Press EXIT to return to normal viewing.

DESCRIPTION ABOUT EACH SETTING OPTION

- BRIGHTNESS:** To adjust the brightness of PC Monitor screen.
- CONTRAST:** To adjust the contrast of PC Monitor screen.
- HOR POSITION:** To adjust the horizontal position of the image on the PC Monitor screen. Each video standard will require a different value for this setting.
- VER POSITION:** To adjust the vertical position of the image on the PC Monitor screen. Each video standard will require a different value for this setting.
- PHASE:** This must be adjusted after the frequency has been set to optimize picture quality.
- CLOCK:** To minimize any vertical bars or stripes visible on the screen background.
- AUTO ADJUST:** When you select this and press ENTER, the HOR POSITION and VER POSITION are adjusted automatically. At the same time, your adjusted level will be cancelled. If the result after the automatic adjustment is not satisfying, manual correction is possible.
- RED/GREEN/BLUE:** To adjust the color temperature of PC Monitor screen.

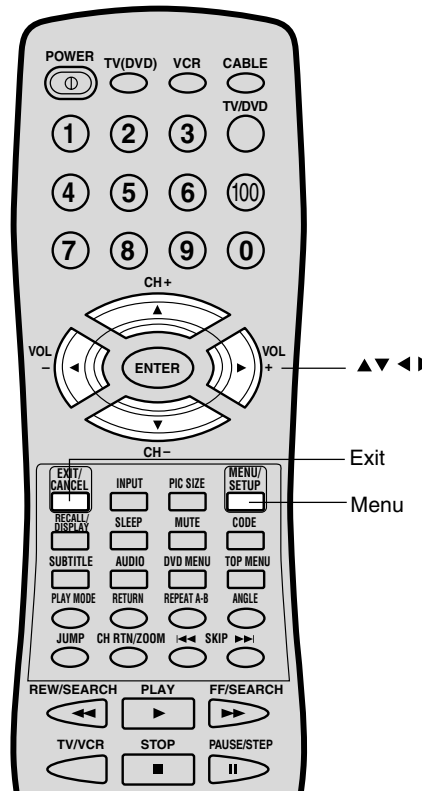
Resetting your picture adjustments in the PC mode

The RESET function returns your picture quality adjustments to the following factory settings:

Menu 1	Menu 2
Brightness center (0)	Red center (0)
Contrast max (25)	Green center (0)
	Blue center (0)

To reset your picture adjustments:

1. Press MENU during PC mode.
2. Press ▲ or ▼ to highlight RESET, and then press ▶.



Notes:

- If you wish to change the on-screen language, follow the steps 1-3 on page 26.
- If no buttons are pressed for more than approx. 60 seconds, the PC Monitor Menu screen will return to normal Monitor screen automatically.
- The PC Monitor Menu settings are not effective for normal TV mode, DVD mode or external input mode.

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Using the remote control

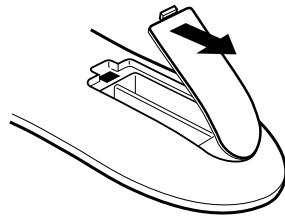
Preparing the remote control for use

With the remote control, you can operate your TV/DVD, most VCR models, and cable TV converters together, even if they are different brands. If you will be using your TV/DVD with a Toshiba VCR, your remote control is already programmed and ready to use. If you own different brands of VCRs and/or converters, you first have to program your remote control. (See "Programming the remote control for use with a VCR, or cable TV converter" on page 23.)

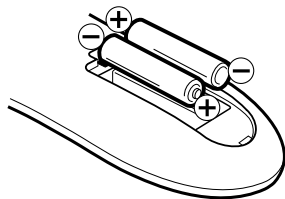
Installing the remote control batteries

To install the batteries:

1. Open the battery cover on the back of the remote control.



2. Install two "AAA" size batteries. Match the + and - signs on the batteries to the signs on the battery compartment.



3. Close the battery cover on the remote control until the lock snaps.

Note:

The TV/DVD remote control may or may not operate your VCR, or cable TV converter. Refer to your owner's manuals supplied with the equipment to see which features are available. In addition, the original controllers may have features not available on this remote control. If you would like to continue to use these features, you may want to use the original remote control.

Caution:

Never throw batteries into fire.

Notes:

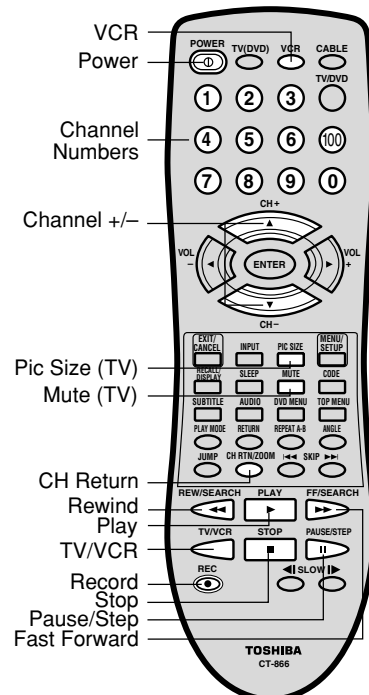
- Always dispose of batteries in a designated disposal location.
- Batteries should always be disposed of with the environment in mind. Always dispose of batteries in accordance with applicable laws and regulations.
- Never mix battery types or use new and used batteries in combination.
- When necessary to replace batteries in the remote control, always replace both batteries with new ones.
- Always remove batteries from remote control if they are dead or if the remote control is not to be used for an extended period of time. This will prevent battery acid from leaking into the battery compartment.

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your TV/DVD

Using the remote control with a VCR, or cable TV converter

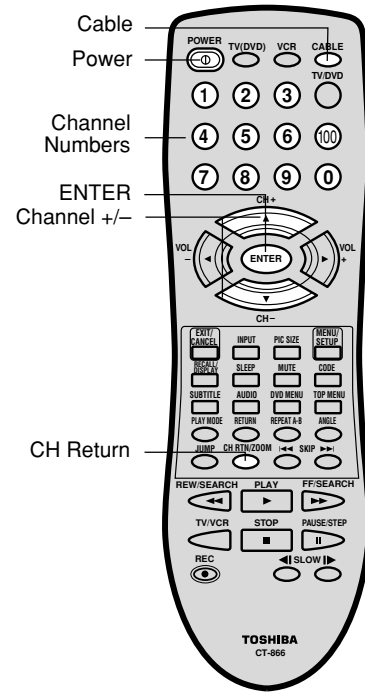
To control a VCR:

Program the remote control to recognize the brand of your VCR (see "Programming the remote control for use with a VCR, or cable TV converter" on page 23.) The buttons shown at right will then control the VCR. Press the VCR button first.



To control a cable TV converter:

Program the remote control to recognize the brand of your converter (see "Programming the remote control for use with a VCR, DVD player, or cable TV converter" on page 23.) The buttons shown at right will control the cable TV converter. Press the CABLE button first.



Programming the remote control for use with a VCR, or cable TV converter

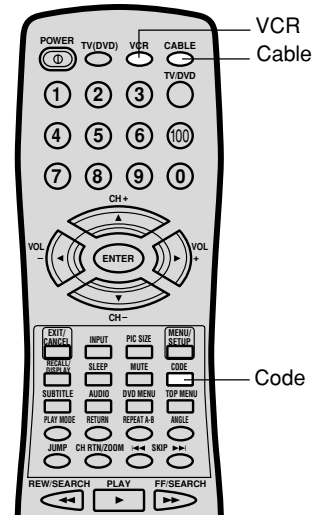
This remote control is pre-programmed to operate Toshiba VCRs. To control VCRs, or cable converters other than Toshiba models, you must follow the steps below to program your remote control.

1. While holding down the CODE button, press the button for the device you want to control (VCR, or CABLE).
2. Enter the 2-digit code listed on page 24 using the Number buttons (0-9) within 10 seconds.
3. Point the remote control at the VCR, or converter and press POWER to test the code.
 - If the VCR, converter turns on, you have entered the right code.
 - If the VCR, or converter does not respond to the remote control, you may have entered the wrong code. Repeat steps 1–2 with another code.

For future reference, write down the codes you used:

VCR code _____

Cable TV converter code _____



Notes:

- When shipped from the factory, the remote control is set to operate your TV/DVD.
- If you do not enter the code within 10 seconds from step 1 or if you enter a code not listed below, this operation is canceled.
- Each time you replace the batteries, you must reprogram the remote control.
- Some newer VCRs are capable of working on either of two remote codes. These VCRs have a switch labeled "VCR1/VCR2." If your VCR has this kind of switch and does not respond to any of the codes for your VCR, set the switch to the other position (VCR1 or VCR2) and reprogram the remote control.

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VCR, and cable TV converter codes

VCR			
Admiral	08, 61	Multi Tech	39
Adventura	31	NEC	02, 18
Aiwa	31	Orion	33, 50
Akai	23, 38, 41	Panasonic	14, 51, 59
Audio Dynamics	02, 18	Pentax	15
Bell & Howell	06, 47	Philco	07, 14
Broksonic	21, 26, 33, 50, 55	Philips	07, 14, 27
Canon	14	Pioneer	10, 15
Citizen	09	Portland	46
Craig	12	Pro Scan	16, 60
Curtis Mathes	14, 59	Quasar	14, 59
Daewoo	44, 46, 48, 54	RCA	15, 16, 20, 27, 40, 42, 60
Daytron	36, 46	Realistic	06, 08, 12, 14, 31
DBX	02, 18	Samsung	20, 30
Emerson	03, 21, 23, 26, 33, 35, 43, 50	Sansui	39
Fisher	11, 12, 13, 47	Sanyo	06, 12, 47
Funai	31	Scott	04, 05, 33, 43
General Electric	14, 16, 20	Sears	06, 09, 11, 12, 15
Goldstar	09	SHARP	08, 61
Go Video	56, 62, 63	Shintom	39
Hitachi	15, 57	Signature 2000	08, 14, 16, 19, 31, 49
Instant Replay	14, 27	Sony	17, 32, 37
J.C. Penney	14, 15, 18, 27	Sylvania	07, 14, 27
JVC	02, 25, 58	Symphonic	31
Kenwood	02	Tashiko	09
Logik	39	Tatung	02
LXI	09, 31	Teac	02, 31
Magnavox	07, 14, 31	Teknika	34
Marantz	07, 18	Toshiba	05, 15
Marta	09	XR1000	39
Memorex	06, 12, 14, 31, 33	Vector Research	04, 18
Mitsubishi	04, 22, 52, 64	Yamaha	02, 18
Montgomery Ward	08, 14, 16, 19, 31, 49	Zenith	01, 24, 25, 29, 37

CABLE TV CONVERTER			
Allegro	58, 62	RCA DSS	73
Allegro A/B Switch	61	Regency	29
Germini	05, 31, 38	Samsung	35
General Electric	67	Scientific Atlanta	16, 23, 36, 64
General Instrument	05, 06	Sprucer	13
Hamlin	02, 03, 45, 65, 66	Standard Comp	35
Jerrold	04, 07, 08, 09, 10, 18, 60, 63	Texscan	39, 56, 71
Kale Vision	35	Tocom	17, 18, 46
Macom	14, 21	Unika	48, 62
Magnavox	34	United Satellite	44
NSC	35, 39, 68, 69, 70	Universal	58, 62
Oak	11, 32, 42	Vid Tech	40
Panasonic	13, 20	Video Way	49
Paragon	33	Viewstar	54, 55, 72
Philips	47, 50, 52, 54, 55	Zenith	01, 53, 74
Pioneer	15, 43	Zenith Satellite	12, 28, 30, 51



Learning about the remote control

POWER turns the TV on and off

TV(DVD), VCR, CABLE select TV, VCR or CABLE mode (page 22)

TV/DVD switches between TV/Video input/PC and DVD

CHANNEL NUMBERS allow direct access to channels (page 27)

CHANNEL + / - cycles through programmed channels (page 27)

VOLUME + / - adjusts the volume level

ENTER sets programmed menu information (page 26)

EXIT/CANCEL exits programming menus or resets information in the menu (page 26)

INPUT selects the video input source (page 33)

PIC SIZE cycles through the five picture sizes: Natural, TheaterWide1, 2, 3 and full (page 35)

MENU/SETUP allows access to programming menus (page 26)

RECALL/DISPLAY displays status information on-screen (page 45)

SLEEP programs the TV to turn off at a set time (page 41)

MUTE turns off the sound (page 42)

CODE is used to program the remote control (page 23)

SUBTITLE sets subtitle (page 53)

AUDIO switches the sound of TV and changes sound track languages (page 53)

DVD MENU allows access to DVD menu (page 52)

TOP MENU allows access to DVD Top menu (page 52)

PLAY MODE sets repeat playback (page 50)

RETURN removes DVD setup menu (page 61)

REPEAT A-B repeats playback between A and B (page 50)

ANGLE changes playback angle (page 52)

JUMP locates the desired point to play back (page 49)

CH RTN/ZOOM returns to the last viewed channel (page 28), allows you to zoom in (page 49)

SKIP skips DVD chapter (page 48)

FF/SEARCH fast forwards a videotape/DVD, CD sound, forwards playback

PLAY plays a videotape/DVD, CD sound

REW/SEARCH rewinds a videotape/DVD, CD sound, reviews playback

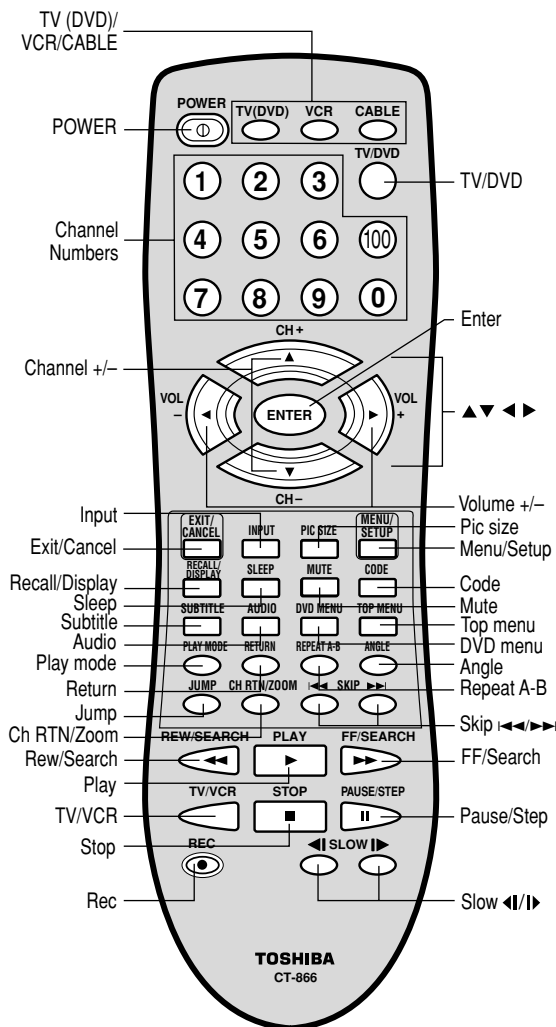
TV/VCR toggles between TV and VCR modes when viewing while recording

STOP stops a videotape/DVD, CD sound

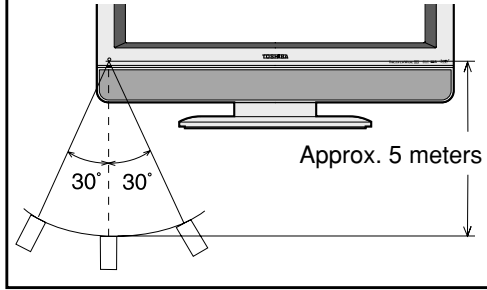
PAUSE/STEP pauses a videotape/DVD, CD sound

REC starts recording a videotape

SLOW plays forward/reverse slowmotion



- Aim the remote control at the remote sensor and press control buttons to operate.
- Operate the remote control within 30° angle on either side of the remote sensor, up to a distance of approx. 5 meters.



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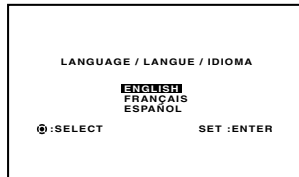
Setting up your TV/DVD

Starting setup

The STARTING SETUP feature appears the first time you turn on the TV/DVD, and helps you select the menu language, specify the TV/CABLE setting, and program channels automatically.

IMPORTANT: Make sure that the antenna or cable TV system connection is made!

1. Press POWER to turn on the TV/DVD. The starting setup function begins and the language setup menu appears on the screen. Press ▲ or ▼ to select your desired language, then press ENTER.
2. Press ▲ or ▼ to select "TV" or "CABLE", then press ENTER.
3. Press ▲ or ▼ to select "START", then press ENTER. If you select "CANCEL" and press ENTER, the STARTING SETUP stops and changes to the TV screen.
4. Now the "AUTO SETUP" starts. After the starting setup is completed, the TV channel appears on the screen.
 - If you press the EXIT button in the process of "AUTO SETUP" the STARTING SETUP stops and changes to the TV screen.



After you have installed the batteries and programmed the remote control, you need to set some preferences on the TV/DVD using the menu system. You can access the menu system with the buttons on the remote control.

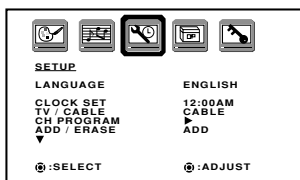
- When you make a menu selection, your changes occur immediately. You do not have to press MENU or EXIT to see your changes.
- After one minute, the menu screen will automatically close if you do not make a selection. Your changes will still be saved.
- When you are finished programming the menus, press EXIT.

Changing the on-screen display language

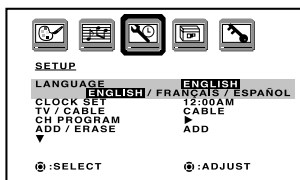
You can choose from three different languages (English, French and Spanish) for the on screen displays. Adjustment menus and messages will appear in the language of your choice.

To select a language:

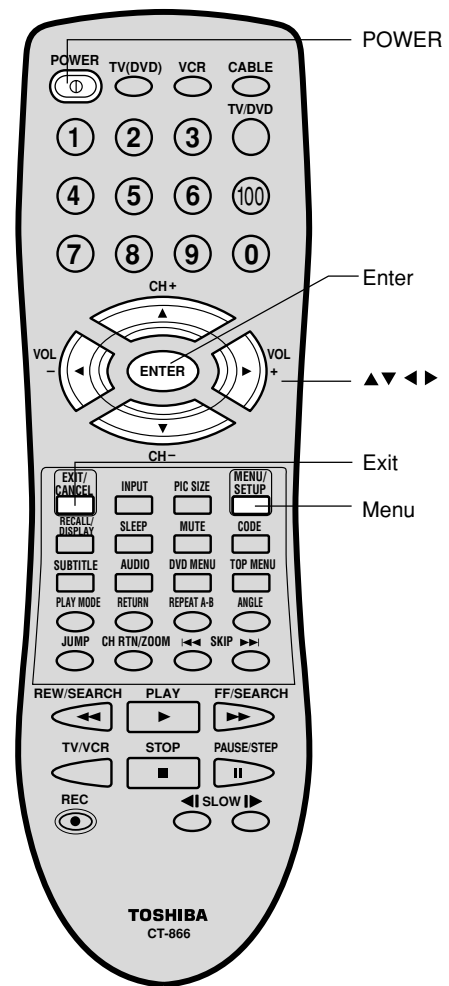
1. Press MENU, then press ◀ or ▶ until the SETUP menu appears.



2. Press ▲ or ▼ to highlight LANGUAGE.



3. Press ◀ or ▶ to highlight your desired language.



Note:

The position and size of the on-screen menu changes for some program format (such as 1080i or 720p).



Adding channels to the TV/DVD's memory

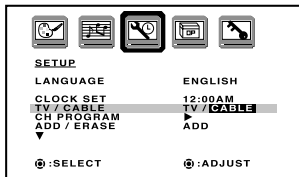
When you press CH + or -, your TV/DVD will stop only on the channels you have stored in the TV/DVD's channel memory. Follow the steps below to program channels into the channel memory.

Programming channels automatically

Your TV/DVD can automatically detect all active channels and store them in its memory. After the TV/DVD has stored the channels in its memory automatically, you can add or erase channels manually.

To add channels automatically:

1. Press MENU, then press ◀ or ▶ to display the SETUP menu.
2. Press ▲ or ▼ until the TV/CABLE selection is highlighted.
3. Press ◀ or ▶ to highlight either TV or CABLE, depending on which you use.



If you use an antenna, choose TV.
If you use cable, choose CABLE.

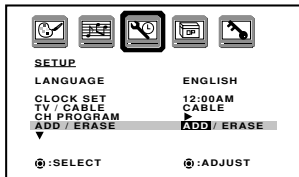
4. Press ▼ until the CH PROGRAM selection is highlighted.
5. Press ◀ or ▶ to start channel programming. The TV/DVD will automatically cycle through all the TV or Cable channels (depending on which you selected), and store all active channels in the channel memory.
While the TV/DVD is cycling through the channels, the message "PROGRAMMING NOW-PLEASE WAIT" appears.
6. When channel programming is complete, the message "COMPLETED" appears.
7. Press CH + or - to view the programmed channels.

Adding and erasing channels manually

After you have programmed the channels automatically, you can add or erase specific channels manually.

To add or erase channels manually:

1. Select the channel you want to add or erase. If adding channels, you must select the channel to add using the Channel Number buttons.
2. Press MENU, then press ◀ or ▶ to display the SETUP menu.
3. Press ▲ or ▼ to highlight ADD/ERASE.
4. Press ◀ or ▶ to select ADD or ERASE, whichever function you want to perform.
5. Repeat steps 1-4 for other channels you want to add or erase.



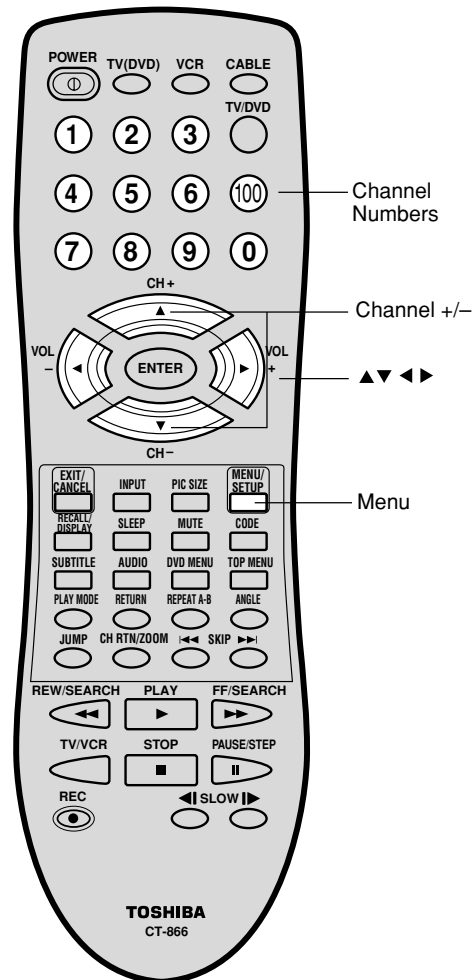
Changing channels

To change to the next programmed channel:

Press Channel ▼ or ▲ on the TV/DVD or CH + or - on the remote control.

To change to a specific channel (programmed or unprogrammed):

Press the Channel Number buttons (0-9 and 100) on the remote control. For example, to select channel 125, press 100, 2, 5.



You also can change the input source using the Channel ▼/▲ on the TV/DVD or CH +/- on the remote control. The programmed channels and input sources will change as below. (DVD will be selected using the Channel ▼/▲ buttons on the TV/DVD only.)



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Adjusting the channel settings

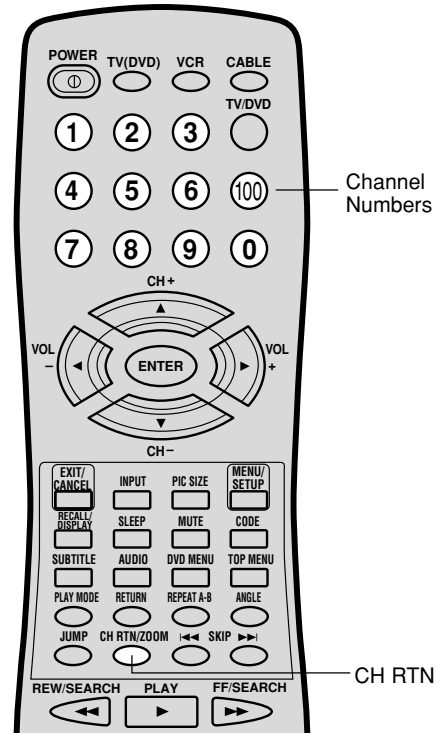
Switching between two channels

You can switch between two channels without entering an actual channel number each time.

To switch between two channels:

1. Select the first channel you want to view.
2. Select a second channel using the Channel Number buttons (0-9, 100).
3. Press CH RTN. The previous channel will be displayed.

Each time you press CH RTN, the TV/DVD will switch back and forth between the two channels.



Using the LOCKS menu

The V-Chip feature is available only for the U.S. V-Chip system. The Canadian V-Chip system is not supported.

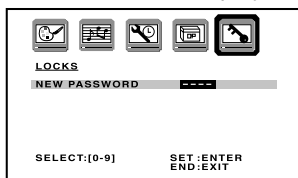
You can prevent others from viewing certain programs or channels by blocking them using the V-Chip feature.

Selecting a password

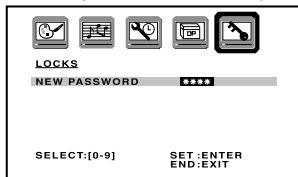
Before you use the block programs and channels, you must select a password. The password you select prevents others from changing the rating limits you set.

To select your password and access the LOCKS menu:

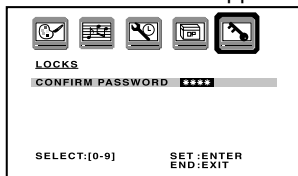
1. Press MENU, then press ◀ or ▶ to highlight the LOCKS menu.
2. Press ▲ or ▼ to display the password entering mode.



3. Use the Channel Number buttons (0-9) to enter your password. If you are accessing the LOCKS menu for the first time, select a four-digit number to be your password. Press ENTER.

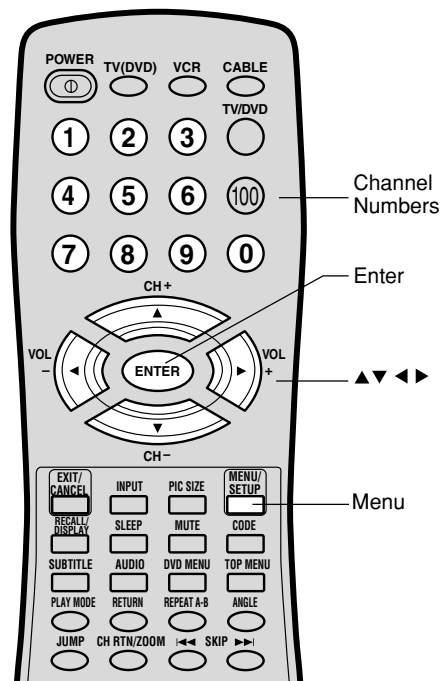


4. Enter the password again to confirm it, and then press ENTER. The LOCKS menu appears.



Note:

The password you programmed is also used in the LOCKS menu; see pages 30-32.



Using the TV/DVD's Features



- You may now set up the LOCKS menu. See "Using the V-Chip (parental control) feature" (below), "Locking channels" (page 30), "Locking video inputs" (page 31), "Setting the GameTimer™" (see page 31) or "Using the panel lock feature" (page 32).

To change your password:

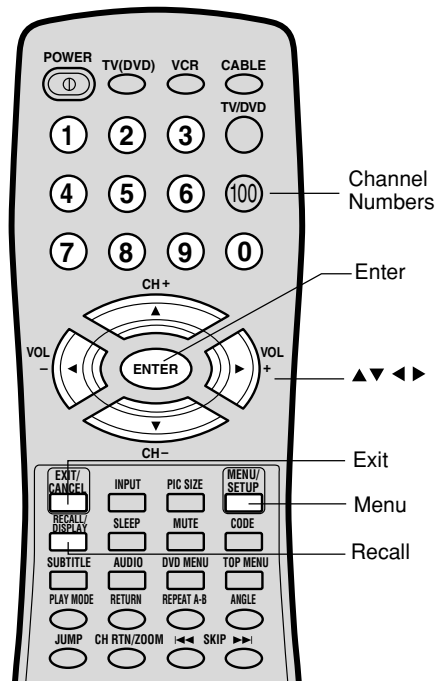
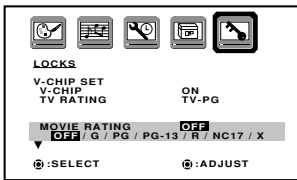
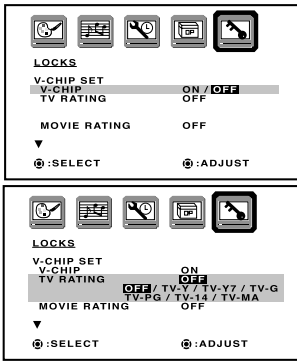
- Press MENU, then press ◀ or ▶ to display the LOCKS menu.
- Press ▲ or ▼ to display the password entering mode.
- Use the Channel Number buttons (0-9) to enter your password. Press ENTER. The LOCKS menu appears.
- Press ▲ or ▼ to highlight NEW PASSWORD and press ◀ or ▶ to display the NEW PASSWORD menu.
- Use the Channel Number buttons (0-9) to enter a new code. Press ENTER.
- Enter the password again to confirm it, and then press ENTER.
- Press EXIT to return to normal viewing.

Using the V-Chip (parental control) feature

The Motion Picture Association of America (MPAA) uses a rating system to qualify motion picture content. Television broadcasters employ a rating system to qualify the content of television programs, as well. The TV and MOVIE ratings work with the V-Chip feature and allow you to block programs according to the rating limits you set.

To use the V-Chip to block programs by rating:

- Press MENU, then press ◀ or ▶ to display the LOCKS menu.
- Press ▲ or ▼ to display the password entering mode.
- Use the Channel Number buttons (0-9) to enter your password. Press ENTER. The LOCKS menu appears.
- Press ▲ or ▼ to highlight V-CHIP.
 - Press ◀ or ▶ to highlight ON to enable V-Chip program blocking by rating.
 - Press ◀ or ▶ to highlight OFF to disable V-Chip program blocking by rating.
- Press ▲ or ▼ to highlight TV RATING. Then, press ◀ or ▶ to display the desired rating.
 - OFF** : TV RATING is not set
 - TV-Y** : All children
 - TV-Y7** : 7 years old and above
 - TV-G** : General audience
 - TV-PG** : Parental guidance
 - TV-14** : 14 years old and above
 - TV-MA** : 17 years old and above
 - When you select TV-Y7, TV-PG, TV-14 or TV-MA, press **RECALL** to explain the rating. Press ▲ or ▼ to select the desired rating you want. Press ◀ or ▶ to select the setting "ON" or "OFF".
- Press ▲ or ▼ to highlight MOVIE RATING. Then, press ◀ or ▶ to display the desired rating.
 - OFF** : MOVIE RATING is not set
 - G** : All ages
 - PG** : Parental guidance
 - PG-13** : Parental guidance less than 13 years old
 - R** : Under 17 years old
Parental guidance suggested
 - NC17** : 17 years old and above
 - X** : Adult only



Note:

If you forget your password, press **RECALL** four times within five seconds from the password entering mode. This allows you to reset your password.

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- When you are done selecting the ratings, press EXIT to return to normal viewing.

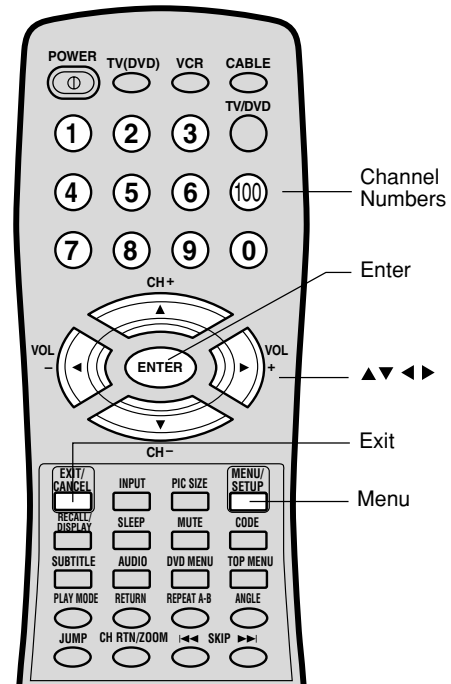
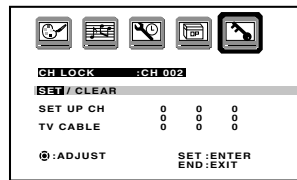
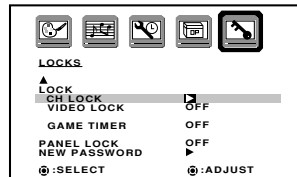
When you try to view a program with a ratings block, a message will appear listing the program's ratings. The program can still be viewed if you press MUTE and then enter your password to temporarily bypass the block.

Locking channels

With the CH LOCK feature, you can lock specific channels. You will not be able to tune locked channels unless you clear the setting. You can choose to lock up to nine TV channels and nine cable channels.

To lock channels:

- Use the Channel Number buttons (0-9 and 100) to display the television channel you wish to lock.
- Press MENU, then press ◀ or ▶ to display the LOCKS menu.
- Press ▲ or ▼ to display the password entering mode.
- Use the Channel Number buttons (0-9) to enter your password, then press ENTER. The LOCKS menu appears.
- Press ▲ or ▼ to highlight CH LOCK and press ◀ or ▶ to display the CH LOCK menu.
- Press ◀ or ▶ to select the following:
 - SET- to set the channel as one to be locked. Then press ENTER.
 - CLEAR- to clear all channels from the list of locked channels. Then press ENTER.
- Repeat steps 1 through 6 to lock other channels. When you are finished locking channels, press EXIT to return to normal viewing.



Note:

After programming CH LOCK, change channels before turning off the television.

Using the TV/DVD's Features

If you try to tune a locked channel, the TV/DVD will not display it, but will display the nearest unlocked channel.

To unlock channels:

- Press MENU, then press ◀ or ▶ to display the LOCKS menu.
- Press ▲ or ▼ to display the password entering mode.
- Use the Channel Number buttons (0-9) to enter your password, then press ENTER. The LOCKS menu appears.
- Press ▲ or ▼ to highlight CH LOCK and press ◀ or ▶ to display the CH LOCK menu.
- Press ◀ or ▶ to highlight CLEAR and clear all channels from the list of locked channels. Press ENTER.
- Press EXIT to return to normal viewing.



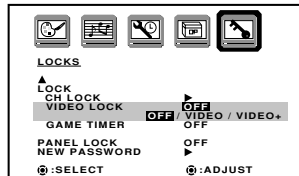
Locking the video inputs

With the VIDEO LOCK feature, you can lock out the input sources (VIDEO1, VIDEO2, COLORSTREAM HD, HDMI, PC) and channels 3 and 4. You will not be able to select the input sources with the INPUT button or Channel buttons unless you clear the setting.

To set up the video lock:

1. Press MENU, then press ◀ or ▶ to display the LOCKS menu.
2. Press ▲ or ▼ to display the password entering mode.
3. Use the Channel Number buttons (0-9) to enter your password, then press ENTER. The LOCKS menu appears.
4. Press ▲ or ▼ to highlight VIDEO LOCK.
5. Press ◀ or ▶ to select:

- OFF: Unlocks all video input sources.
- VIDEO: Locks VIDEO1, VIDEO2, COLORSTREAM HD, HDMI, PC.
- VIDEO +: Locks VIDEO1, VIDEO2, COLORSTREAM HD, HDMI, PC, channel 3 and channel 4. This option should be used if you use the antenna terminal to play a video tape.



6. Press EXIT to return to normal viewing.

To unlock video input:

1. Press MENU, then press ◀ or ▶ to display the LOCKS menu.
2. Press ▲ or ▼ to display the password entering mode.
3. Use the Channel Number buttons (0-9) to enter your password, then press ENTER. The LOCKS menu appears.
4. Press ▲ or ▼ to highlight VIDEO LOCK and press ◀ or ▶ to highlight OFF.
5. Press EXIT to return to normal viewing.

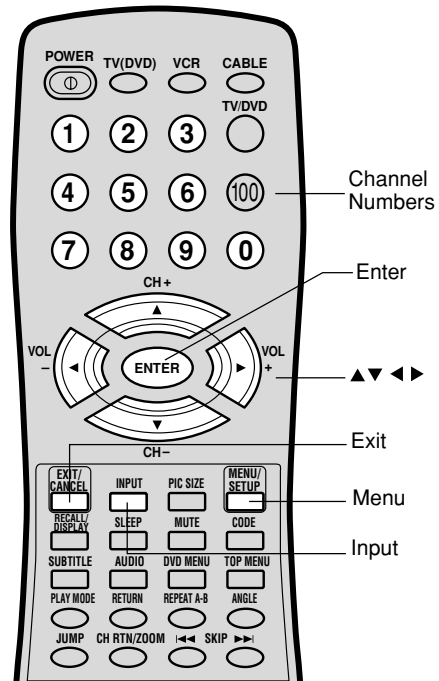
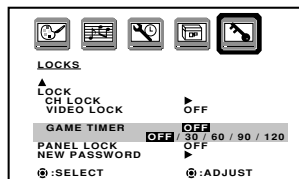
Setting the GameTimer™

With the GameTimer™ feature, you can automatically activate the VIDEO LOCK feature (VIDEO setting) to set a time limit for playing a video game (30, 60, 90 or 120 minutes).

To set up the GameTimer:

1. Press MENU, then press ◀ or ▶ to display the LOCKS menu.
2. Press ▲ or ▼ to display the password entering mode.
3. Use the Channel Number buttons (0-9) to enter your password, then press ENTER. The LOCKS menu appears.
4. Press ▲ or ▼ to highlight GAME TIMER.
5. Press ◀ or ▶ to select a time limit (30 minutes, 60 minutes, 90 minutes, 120 minutes or OFF).
6. Press EXIT to return to normal viewing. After the GameTimer is programmed, the display will appear briefly every ten minutes to remind you that the GameTimer is operating.

When the programmed time is reached, the TV/DVD will change channels automatically and enter VIDEO LOCK mode.



Note:

After programming VIDEO LOCK, change channels or activate the INPUT key before turning off the television.

Notes:

- Interactive video games that involve shooting a gun type of joy-stick at an on screen target may not work on this TV.
- To deactivate the GameTimer, set the VIDEO LOCK to OFF (see "Locking the video inputs" above).

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Using the panel lock feature

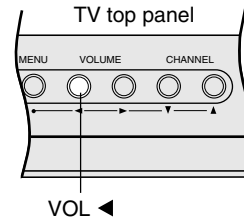
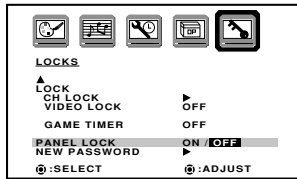
You can lock the top panel buttons to prevent your settings from being changed accidentally (by children, for example). When the panel lock is in ON, all control buttons on the TV/DVD top panel (except POWER) do not operate.

To lock the panel:

1. Press MENU, then press ◀ or ▶ to display the LOCKS menu.
2. Press ▲ or ▼ to display the password entering mode.
3. Use the Channel Number buttons (0-9) to enter your password, then press ENTER. The LOCKS menu appears.

4. Press ▲ or ▼ to highlight PANEL LOCK and press ◀ or ▶ to highlight ON.

If a button on the top panel is pressed, the message "NOT AVAILABLE" appears.

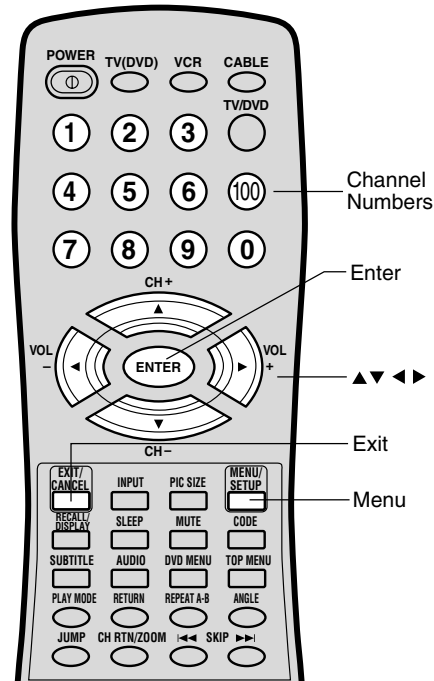


To unlock the panel:

Press and hold the VOL ◀ button on the TV/DVD top panel for about 10 seconds until the message "PANEL LOCK:OFF" appears on-screen.

You also can unlock the panel using the menus:

1. Press MENU, and then press ◀ or ▶ to display the LOCKS menu.
2. Press ▲ or ▼ to display the password entering mode.
3. Use the Channel Number buttons (0-9) to enter your password, then press ENTER. The LOCKS menu appears.
4. Press ▲ or ▼ to highlight PANEL LOCK, and then press ◀ or ▶ to highlight OFF.



Labeling channels

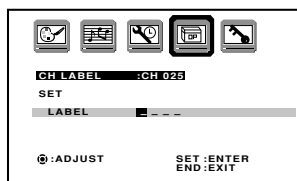
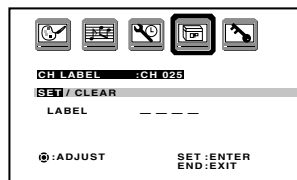
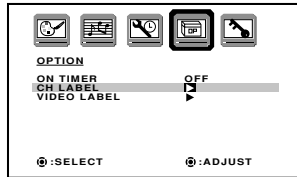
Channel labels appear over the channel number display each time you turn on the TV/DVD, select a channel, or press the Recall button. You can choose any four characters to identify a channel.

To create channel labels:

1. Select a channel you want to label.
2. Press MENU, then press ◀ or ▶ until the OPTION menu appears.
3. Press ▲ or ▼ to highlight CH LABEL.
4. Press ▶ to display the CH LABEL menu. SET/CLEAR will be highlighted.
5. Press ◀ or ▶ to highlight SET.
6. Press ▲ or ▼ to highlight LABEL.
7. Press ◀ or ▶ to enter a character in the first space. Press the button repeatedly until the character you want appears on the screen. Press ENTER.
8. Repeat step 7 to enter the rest of the characters.

If you would like a blank space in the label name, you must choose an empty space from the list of characters; otherwise, a dash will appear in that space.

9. Repeat steps 1-8 for other channels. You can assign a label to each channel.
10. Press EXIT to return to normal viewing.



Note:

The character will change as below.

◀ → 0...9 ↔ A...Z
↔ SPACE ↔ + ↔ -

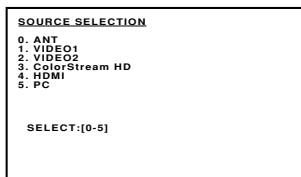
To erase channel labels:

1. Select a channel with a label.
2. Press MENU, then press ◀ or ▶ until the OPTION menu appears.
3. Press ▲ or ▼ to highlight CH LABEL.
4. Press ◀ or ▶ to display the CH LABEL menu. SET/CLEAR will be highlighted.
5. Press ◀ or ▶ to highlight CLEAR.
6. Press ENTER.
7. Repeat steps 1-6 to erase other channel labels.



Selecting the video input source

Press INPUT to view a signal from another device connected to your TV/DVD, such as a VCR or DVD player. You can select ANT, VIDEO 1, VIDEO 2, ColorStream HD, HDMI or PC depending on which input jacks you used to connect your devices (see "Connecting your TV/DVD" on page 11).



Pressing INPUT on the remote control displays the current signal source (press INPUT again or 0-5 to change)

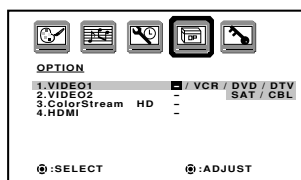
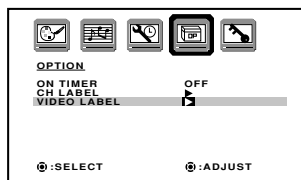
Labeling the video input sources

The video label feature allows you to label each input source for your TV/DVD from the following preset list of labels:

- : Uses the default label name
- VCR** : Video cassette recorder
- DVD** : DVD video
- DTV** : Digital TV set-top box
- SAT** : Satellite box
- CBL** : Cable box

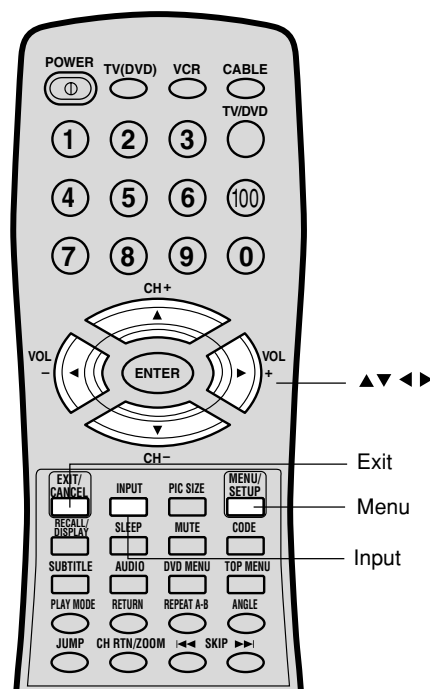
To label the video input sources:

1. Press MENU, and then press ◀ or ▶ to display the OPTION menu.
2. Press ▲ or ▼ to highlight VIDEO LABEL.
3. Press ▶ to display the VIDEO LABEL menu.
4. Press ▲ or ▼ to highlight the video source you want to label.
5. Press ◀ or ▶ to select the desired label for that input source.
6. Press EXIT to return to normal viewing.



Please note the following regarding the HDMI source selection:

The HDMI IN jack is not intended for connection to and should not be used with a PC (personal computer). See "Connecting an HDMI or a DVI device to the HDMI input" on page 17 for details.



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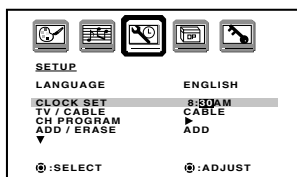
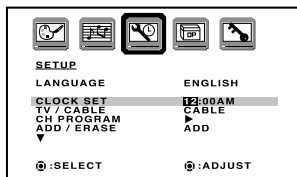


Setting the clock

You must set the clock before you can program the ON timer.

To set the clock: (Example: 8:30 AM)

1. Press MENU, then press ◀ or ▶ to display the SETUP menu.
2. Press ▲ or ▼ to highlight CLOCK SET.
3. Press ◀ or ▶ to highlight the hour position.
4. Press ▲ or ▼ to set the hour, then press ▶ to highlight the minute position.
5. Press ▲ or ▼ to set the minutes, then press EXIT to return to normal viewing.

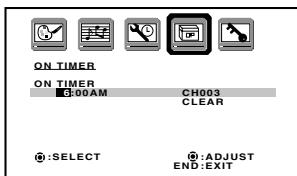


Setting the ON timer

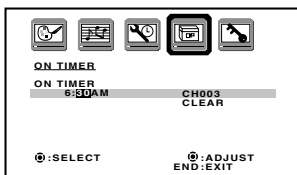
This feature allows you to program the TV/DVD to turn on automatically at a set time. If you program the ON TIMER to "DAILY," the TV/DVD will turn on every day at the same time to the same channel until you clear the ON TIMER.

To set the on timer: (Example: Turning on the TV/DVD to channel 012 at 6:30 AM, DAILY)

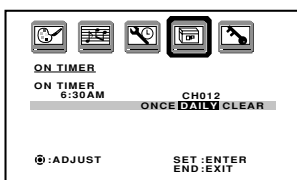
1. Set the clock, if you have not already done so (see above).
2. Press MENU, and then press ◀ or ▶ to display the OPTION menu.
3. Press ▲ or ▼ to highlight ON TIMER.
4. Press ◀ or ▶ to highlight SET, then press ENTER. The ON TIMER menu appears.
5. Press ▲ or ▼ to set the desired hour, then press ▶.



6. Set the desired minutes and channel, as in step 5.

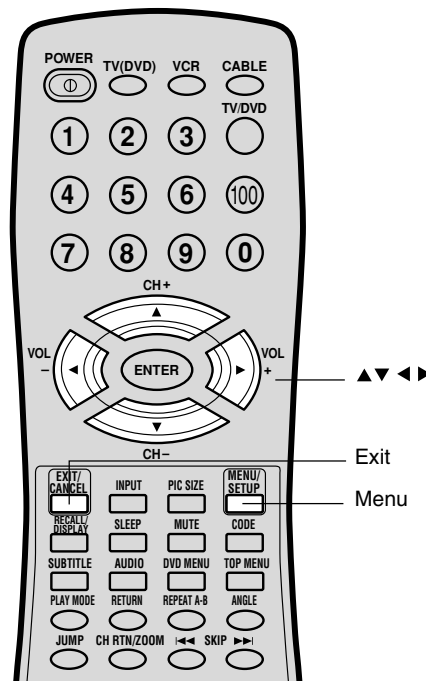


7. Press ▶ to select ONCE or DAILY.
8. Press EXIT to return to normal viewing.



To cancel the on timer:

- Select CLEAR in step 6 above.
- Press EXIT to return to normal viewing.



Note:

If the power source for the TV/DVD is interrupted (for example, the power cord is unplugged or a power failure occurs), you will need to reset the clock.

Note:

After a power failure or disconnection of the power, the timer settings will be lost.



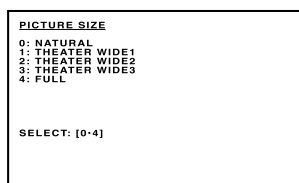
Viewing the wide-screen picture formats (480i and 480p signals only)

You can view 480i and 480p format programs in a variety of picture sizes—Natural, TheaterWide 1, TheaterWide 2, TheaterWide 3, and Full.

The way the image displays in any of the picture sizes will vary depending on the format of the program you are viewing. Select the picture size that displays the current program the way that looks best to you.

Selecting the picture size

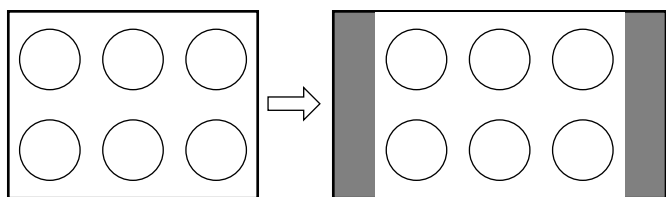
1. Press PIC SIZE on the remote control.
2. Press the corresponding number button (0-4) to select the desired picture size, as described below and on the next page.



Natural picture size

- The image is displayed close to its originally formatted proportion. Some program formats will display with side bars and/or bars at the top and bottom.

Natural picture size example: The way the image displays will vary depending on the format of the program you are currently watching.

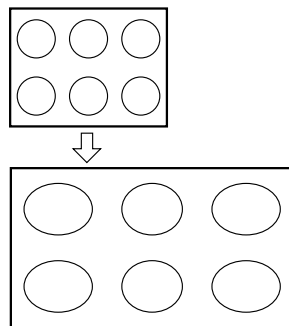


Conventional (4:3) picture on a conventional TV screen

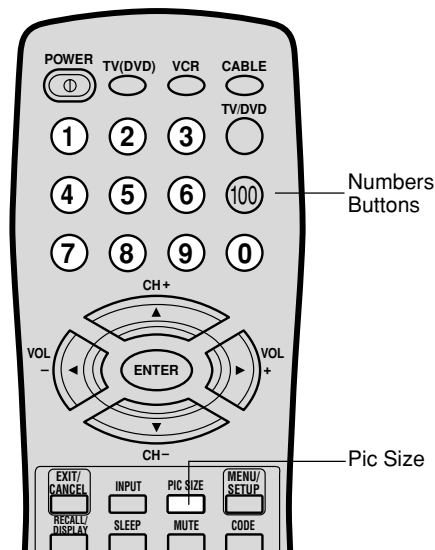
Conventional (4:3) picture in Natural size on your wide-screen TV

TheaterWide 1 picture size (for 4:3 format programs)

- The picture is non-uniformly enlarged—the center of the picture remains close to its original proportion, but the left and right edges are stretched wider to fill the screen.
- The top and bottom edges of the picture may be hidden; however, this mode cannot be scrolled.

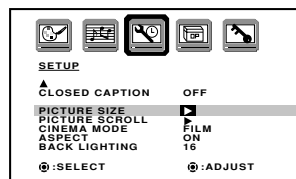


TheaterWide 1 picture size example



Note:

You also can change the picture size by selecting PICTURE SIZE in the SETUP menu.



Notes:

- The PICTURE SIZE feature is not available for some program formats (such as 1080i or 720p). Such formats will display in Natural picture size.
- The PICTURE SIZE feature is not available in the PC mode.
- If you select TheaterWide 2 or 3, the top and bottom edges of the picture may be hidden. To see the hidden edges, either scroll the picture (see page 37) or try viewing the program in Full picture size.
- Using these functions to change the picture size (i.e., changing the height/width ratio) for any purpose other than your private viewing may be prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

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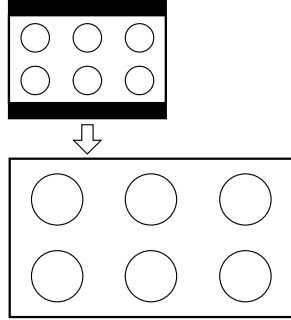
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TheaterWide 2 picture size (for letter box programs)

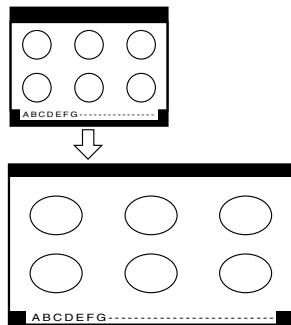
- The entire picture is uniformly enlarged—it is stretched the same amount both wider and taller (retains its original proportion).
- The top and bottom edges of the picture may be hidden. To view the hidden areas, see “Scrolling the TheaterWide® picture” on page 37.



TheaterWide 2 picture size example

TheaterWide 3 picture size (for letter box programs with subtitles)

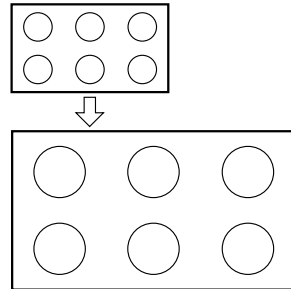
- The picture is non-uniformly enlarged—it is stretched wider to fill the width of the screen, but only slightly stretched taller.
- The top and bottom edges of the picture may be hidden. To view the hidden areas (such as subtitles or captions), see “Scrolling the TheaterWide® picture” on page 37.



TheaterWide 3 picture size example

Full picture size (for 16:9 source programs)

- The picture is non-uniformly enlarged—if receiving a 4:3 format program, it is stretched wider to fill the width of the screen, but not stretched taller.
- None of the picture is hidden.



Full picture size example

Note:

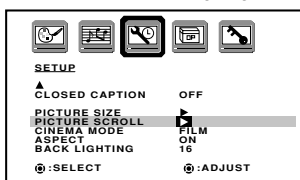
Using these functions to change the picture size (i.e., changing the height/ width ratio) for any purpose other than your private viewing may be prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

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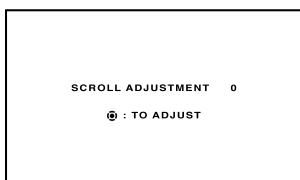


Scrolling the TheaterWide® picture (TheaterWide 2 and 3 only)

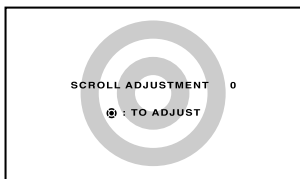
1. Press PIC SIZE to select the TheaterWide 2 or 3 mode.
2. Press MENU, and then press ◀ or ▶ until the SETUP menu appears.
3. Press ▲ or ▼ to highlight PICTURE SCROLL.



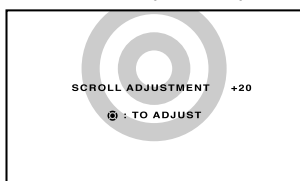
4. Press ◀ or ▶ to display the Scroll Adjustment mode.



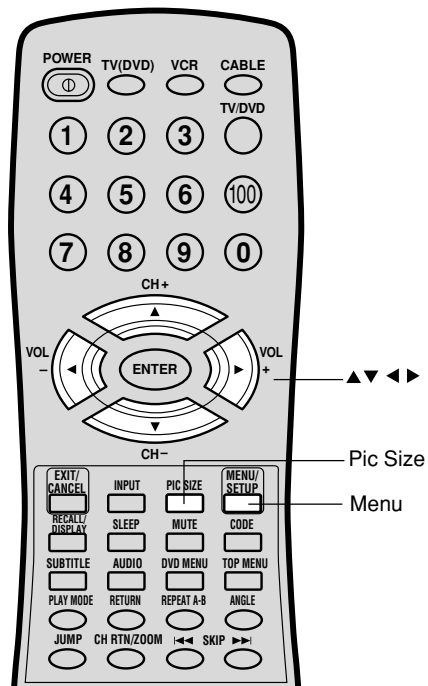
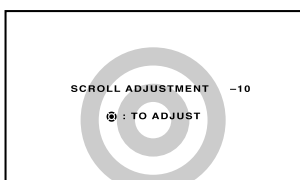
5. Press ▲ or ▼ to adjust the vertical position of the picture.
 - Normal (center) position



- To raise the picture, press ▲.



- To lower the picture, press ▼.



Note:

You can scroll the picture in TheaterWide 2 and TheaterWide 3 only. The scroll amounts are as follows:

- 480i/480p signal source:
 - Wide 1 : Not adjustable
 - Wide 2 : -10 to +20
 - Wide 3 : -10 to +20

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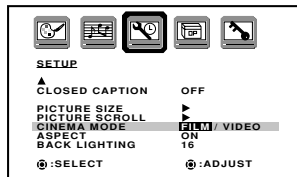


Selecting the cinema mode

When you view a DVD movie (3:2 pulldown processed) from a DVD player connected to the ColorStream (component video) inputs on the TV/DVD, smoother and more natural motion can be obtained by setting the CINEMA MODE to FILM.

To set the CINEMA MODE to FILM:

1. Press MENU, and then press ◀ or ▶ until the SETUP menu appears.
2. Press ▲ or ▼ to highlight CINEMA MODE, and then press ◀ or ▶ to select FILM.



To set the CINEMA MODE to VIDEO (off):

Press ◀ or ▶ to select VIDEO in step 2 above.

Using the ASPECT feature

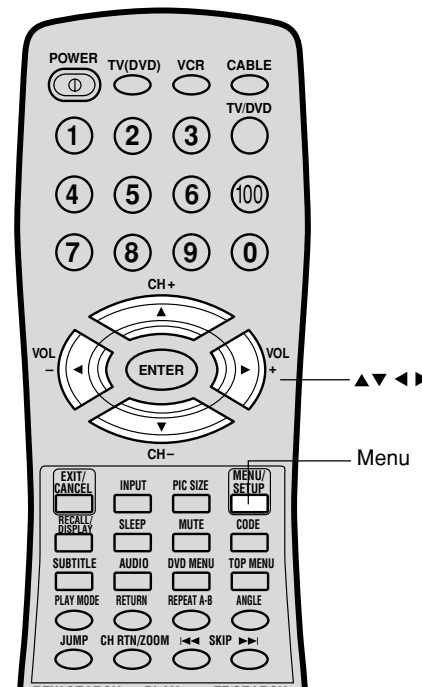
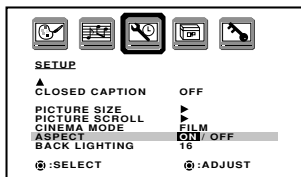
When the ASPECT feature is set to ON and the TV/DVD receives a 480i signal, the picture size is automatically selected (as described in the following table).

Aspect ratio of signal source	Automatic aspect size (automatically selected when ASPECT is ON)
4:3 Normal	Natural
16:9 Full	Full
4:3 Letter box	TheaterWide 2
Not defined	User-set mode

If the signal does not include aspect information, the picture size you selected on pages 35 and 36 is displayed.

To turn on the ASPECT feature:

1. Press MENU, and then press ◀ or ▶ until the SETUP menu appears.
2. Press ▲ or ▼ to highlight ASPECT, and then press ◀ or ▶ to select ON.





Adjusting the picture

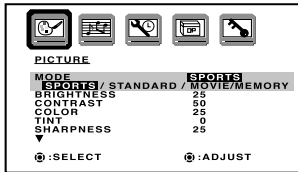
Selecting the picture mode

You can select four picture modes—Sports, Standard, Movie, and Memory—as described in the following table:

Mode	Picture Quality
SPORTS	Bright and dynamic picture (factory-set)
STANDARD	Standard picture quality (factory-set)
MOVIE	Movie-like picture setting (factory-set)
MEMORY	Your personal preferences (set by you; see "Adjusting the picture quality")

To select the picture mode:

1. Press MENU, then press ◀ or ▶ to display the PICTURE menu.
2. Press ▲ or ▼ to highlight MODE.



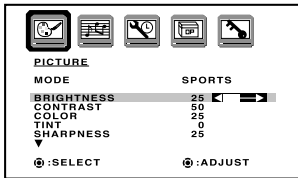
3. Press ◀ or ▶ to highlight the mode you prefer.
4. Press EXIT to return to normal viewing.

Adjusting the picture quality

You can adjust the picture quality to your personal preferences, including the brightness, contrast, color, tint, and sharpness. The qualities you choose will be stored automatically in your TV/DVD's memory so you can recall them at any time.

To adjust the picture quality:

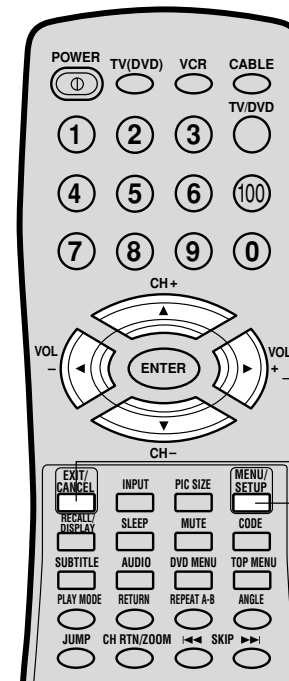
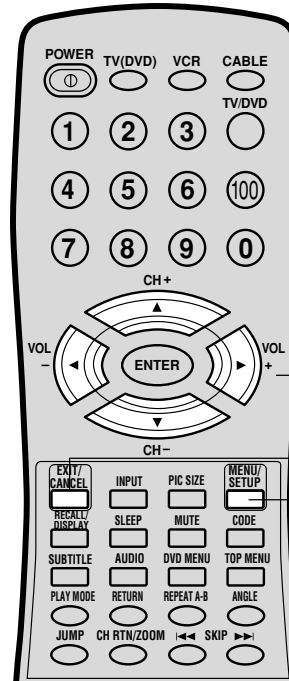
1. Press MENU, then press ◀ or ▶ to display the PICTURE menu.
2. Press ▲ or ▼ until the item you want to adjust is highlighted.



3. Press ◀ or ▶ to adjust the level.

Selection	◀ Pressing	▶
BRIGHTNESS	darker	lighter
CONTRAST	lower	higher
COLOR	paler	deeper
TINT	reddish	greenish
SHARPNESS	softer	sharper

4. Press EXIT to return to normal viewing.



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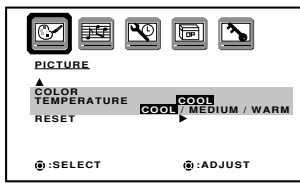
Selecting the color temperature

Change the picture quality by selecting from three preset color temperatures—cool, medium, and warm—as described in the following table:

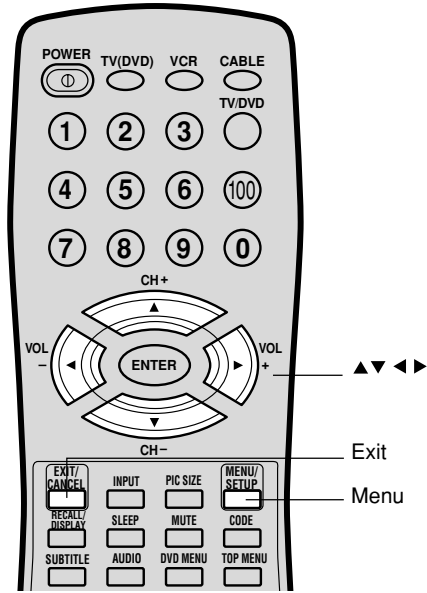
Mode	Picture Quality
COOL	Blueish
MEDIUM	Neutral
WARM	Reddish

To select the color temperature:

1. Press MENU, then press ◀ or ▶ to display the PICTURE menu.
2. Press ▲ or ▼ to highlight COLOR TEMPERATURE.



3. Press ◀ or ▶ to highlight the mode you prefer.
4. Press EXIT to return to normal viewing.



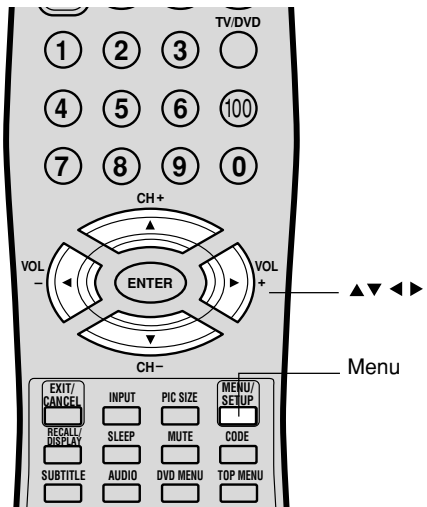
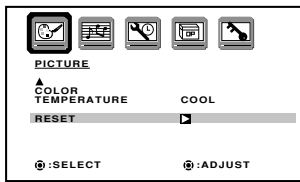
Resetting your picture adjustments

The RESET function returns your picture quality adjustments to the following factory settings:

Mode	sports	Tint	center (0)
Brightness	center (25)	Sharpness	center (25)
Contrast	max (50)	Color temperature	cool
Color	center (25)		

To reset your picture adjustments:

1. Press MENU, then press ◀ or ▶ to display the PICTURE menu.
2. Press ▲ or ▼ to highlight RESET, and then press ▶.



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Setting the sleep timer

You can set the TV/DVD so it turns off automatically.

To set the sleep timer:

Repeatedly press SLEEP on the remote control to set the length of time until the TV/DVD turns off. The clock will increase 10 minutes for each press of the SLEEP button (0h00mm, 0h10mm, ...1h50mm, 2h00mm). After the sleep timer is programmed, the display will appear briefly every ten minutes to remind you that the sleep timer is operating.

To confirm the sleep timer setting:

Press SLEEP one time. The remaining time will be momentarily displayed.

To cancel the sleep timer:

Repeatedly press SLEEP until the display turns to 0h00m.

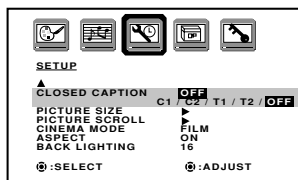
Using the closed caption feature

The Closed Caption feature has two options:

- Captions—An on-screen display of the dialogue, narration, and sound effects of programs and videos that are closed-captioned (usually identified in your local TV listing as “CC”).
- Text—An on-screen display of information not related to the program, such as weather or stock data (if available in your viewing area).

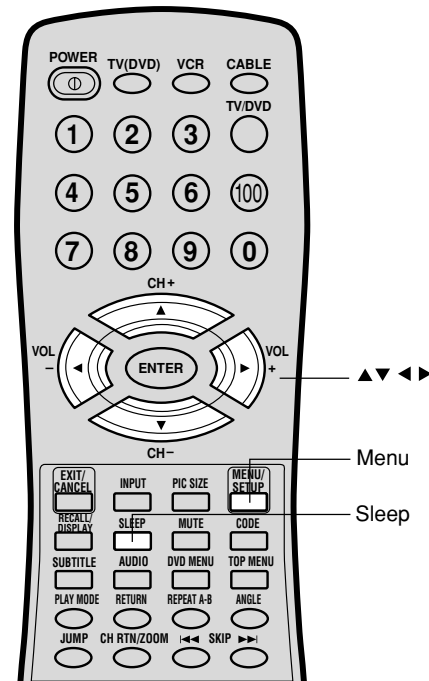
To view captions or text:

1. Tune the TV/DVD to the desired program.
2. Press MENU, and then press ◀ or ▶ to display the SETUP menu.
3. Press ▲ or ▼ to highlight CLOSED CAPTION.



4. Press ◀ or ▶ to select the desired Closed Caption mode, as follows:

- To view captions, select C1 or C2 (C1 displays translation of the primary language in your area). Note: If the program or video you selected is not closed-captioned, no captions will display on-screen.
- To view text, select T1 or T2. Note: If text is not available in your viewing area, a black rectangle may appear on-screen. If this happens, set the Closed Caption feature to OFF.
- To turn the Closed Caption feature off, highlight OFF in the Closed Caption menu.



Note:

A closed caption signal may not be decoded in the following situations:

- when a video tape has been dubbed
- when the signal reception is weak
- when the signal reception is non-standard

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Adjusting the sound

Muting the sound

Press MUTE to temporarily turn off the sound. While the sound is off, the screen will display the word MUTE in the lower right-hand corner. To restore the sound, press MUTE again.

Selecting stereo/SAP broadcasts

The multi-channel TV sound (MTS) feature provides high-fidelity stereo sound. MTS also can transmit a second audio program (SAP) containing a second language or other audio information.

Note: The MTS feature is not available in VIDEO mode.

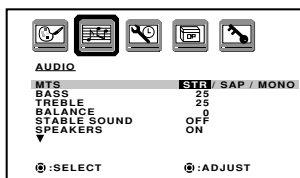
When the TV/DVD receives a stereo or SAP broadcast, the word "STEREO" or "SAP" displays on-screen every time you turn the TV on, change the channel, or press RECALL.

To listen to stereo sound:

1. Press MENU, then press ◀ or ▶ to display AUDIO menu.
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight STR (stereo).

Notes:

- In general, you can leave your TV/DVD in stereo mode because the TV/DVD automatically outputs the type of sound being broadcast (stereo or mono).
- If the stereo sound is noisy, select MONO to reduce the noise.



4. Press EXIT to return to normal viewing.

To listen to a second audio program (SAP):

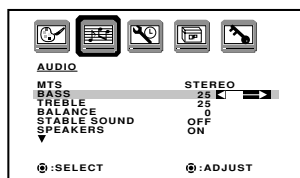
1. Press MENU, then press ◀ or ▶ to display AUDIO menu.
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight SAP. The TV/DVD speakers will output the second audio program instead of normal audio.
4. Press EXIT to return to normal viewing.

Adjusting the sound quality

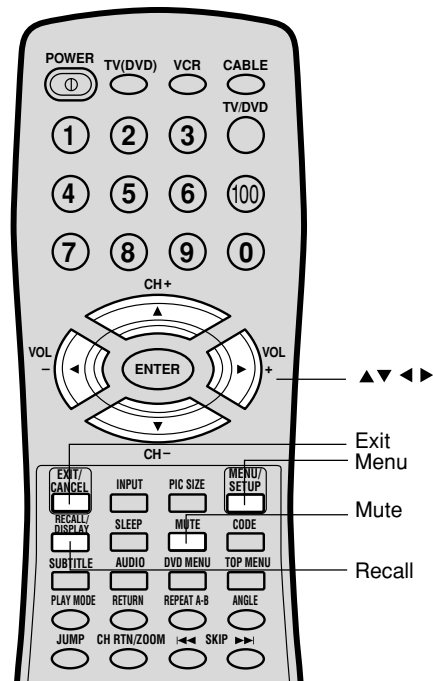
You can change the sound quality of your TV by adjusting the bass, treble, and balance.

To adjust the sound quality:

1. Press MENU, then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight the item you want to adjust.



3. Press ◀ or ▶ to adjust the level.
 - ◀ makes the sound quality weaker or decreases the balance in the right channel, depending on the item selected.
 - ▶ makes the sound quality stronger or decreases the balance in the left channel, depending on the item selected.



Note:

A second audio program (SAP) can be heard only on those TV stations that offer it.

For example, a station might broadcast music as a second audio program. If you have SAP on, you will see the current program on the screen but hear music instead of the program's normal audio.

However, if you have SAP on, and the station you are watching is not currently broadcasting a second audio program, the station's normal audio will be output; however, occasionally there is no sound at all in SAP mode. If this happens, set the MTS feature to STEREO mode.

Note:

Adjusting the sound quality (bass, treble and balance) does not effect to the sound of Headphone jack and Variable audio out jack.



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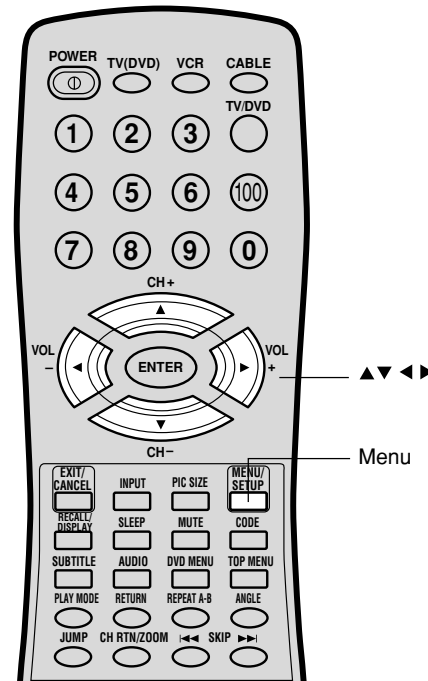
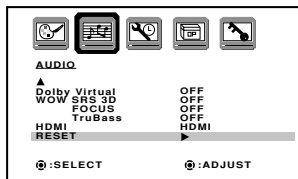
Resetting your audio adjustments

The RESET function returns the audio adjustments to the following factory settings:

- Basscenter (25)
- Treble center (25)
- Balance center (0)

To reset your audio adjustments:

1. Press MENU, then press ◀ or ▶ to display the AUDIO menu.
2. Press ▲ or ▼ to highlight RESET, and then press ▶.

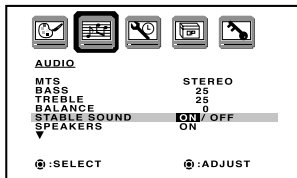


Using the StableSound® feature

The StableSound feature limits the highest volume level to prevent extreme changes in volume when the signal source is changed.

To turn on the StableSound® feature:

1. Press MENU, then press ◀ or ▶ to display the AUDIO menu.
2. Press ▲ or ▼ to highlight STABLE SOUND.
3. Press ◀ or ▶ to highlight ON.



To turn off the StableSound® feature:

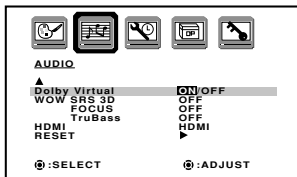
Highlight OFF in step 3 above.

Using the Dolby® Virtual surround feature

The Dolby Virtual surround feature allows you to listen to your TV/DVD in just like a surround sound mode.

To turn on the Dolby Virtual surround feature:

1. Press MENU, then press ◀ or ▶ to display the AUDIO menu.
2. Press ▲ or ▼ to highlight Dolby Virtual.
3. Press ◀ or ▶ to highlight ON.



To turn off the Dolby Virtual surround feature:

Highlight OFF in step 3 above.

Notes:

- Dolby Virtual surround feature is not available when WOW SRS 3D feature is set to ON.
- Dolby Virtual surround feature does not work to the sound of Headphone jack and Variable audio out jack.

Manufactured under license from Dolby laboratories. Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.

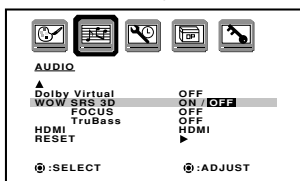


Using the WOW™ surround sound feature

WOW is a special combination of SRS Labs audio technologies that creates a thrilling surround sound experience with deep, rich bass from stereo sound sources. Your TV/DVD's audio will sound fuller, richer, and wider. WOW consists of three features; SRS 3D, FOCUS, and TruBass.

To adjust the WOW feature:

1. Select STEREO mode (see "selecting stereo/SAP broadcasts" on page 42).
2. Press MENU, and then press ◀ or ▶ to display the AUDIO menu.
3. Press ▼ or ▲ to highlight the desired WOW feature you want to adjust.
 - SRS 3D — To turn on or off the surround sound effect.
 - FOCUS — To turn on or off the vocal emphasis effect.
 - TruBass — To select your desired bass expansion level (HIGH, LOW or OFF).



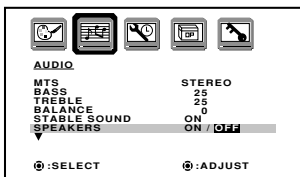
4. Press ◀ or ▶ to adjust the item.

Turning off the built-in speakers

Use this feature to turn the TV/DVD speakers off when you connect an audio system (see pages 16, 18 and 19).

To turn off the built-in speakers:

1. Press MENU, then press ◀ or ▶ to display the AUDIO menu.
2. Press ▲ or ▼ to highlight SPEAKERS, and then press ◀ or ▶ to select OFF.



To turn on the built-in speakers:

Select ON in step 2 above.

Selecting the HDMI audio input source

See page 17 for details on connecting an HDMI or a DVI device to the TV/DVD's HDMI input.

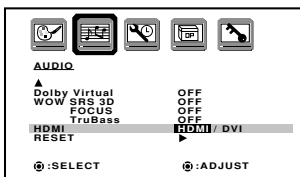
If you connect a DVI device, to hear audio you must also connect analog audio cables to the HDMI audio IN jacks. Set the HDMI audio input setting to "DVI" with this connection.

If you connect an HDMI device and play media with digital audio output, to hear digital audio set the HDMI audio input setting to "HDMI" with this connection.

If you connect an HDMI device but play media with analog audio output (for example, certain CDVs do not output digital audio), to hear audio you must also connect analog audio cables to the HDMI audio IN jacks. Set the HDMI audio input setting to "DVI" with this connection.

To select the HDMI audio input source:

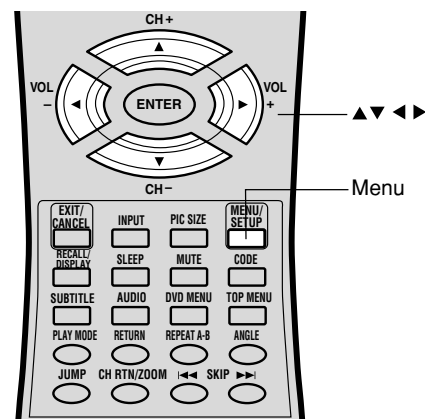
1. Press MENU, and then press ◀ or ▶ to display the AUDIO menu.
2. Press ▼ or ▲ to highlight HDMI.
3. Press ◀ or ▶ to select HDMI or DVI.



Notes:

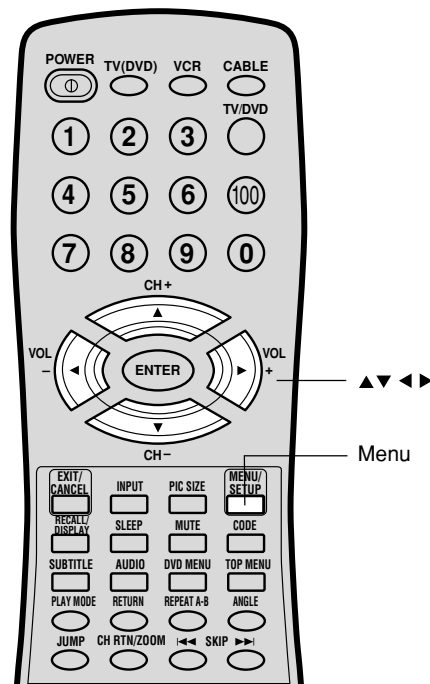
- If the broadcast is monaural, the SRS 3D effect will not work.
- WOW feature does not work to the sound of Headphone jack and Variable audio out jack.

SRS WOW, SRS and (●) symbol are trademarks of SRS Labs, Inc. SRS WOW technology is incorporated under license from SRS Labs, Inc.



Note:

Make sure the volume control of your audio amplifier is set to a moderate listening level.



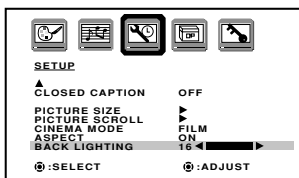


Adjusting the back lighting feature

If your TV/DVD is in a bright room, the screen image may be difficult to see. You can use the BACK LIGHTING feature to adjust the screen brightness for improved picture clarity.

To adjust the back lighting:

1. Press MENU, and then press ◀ or ▶ until the SETUP menu appears.
2. Press ▲ or ▼ to highlight BACK LIGHTING.

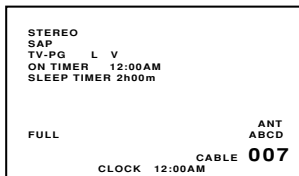


3. Press a ◀ or ▶ to adjust the screen brightness.

Displaying on-screen information

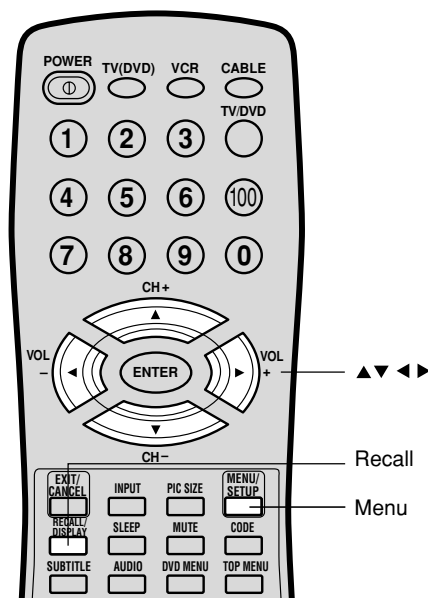
Press RECALL to display the following on-screen information:

- Clock
- Channel number or Video input mode selected
- Channel label (if preset)
- Stereo or SAP (second audio program) audio status
- Content rating
- On timer, Sleep time (if preset)
- Picture size



Note:

The cold cathode fluorescent lamp used for the back light on this TV/DVD has a limited life. When areas on the screen darken, flicker, or no longer light up, the lamp may be at the end of its life. Contact your nearest service center.



Auto power off

The TV/DVD will automatically turn off after approximately 15 minutes if it is tuned to a vacant channel or a station that completes its broadcast for the day and stops broadcasting on that channel. This feature does not work in Video input/PC/DVD mode.

Understanding the Power Return feature

If the power is cut off while you are viewing the TV/DVD and the power is resupplied, the Power Return feature will turn the TV/DVD on automatically.

If the power is going to be off for a long time or you are going to be away from home for a long time, unplug the power cord from the wall outlet to prevent the TV/DVD from turning on in your absence.

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DVD Playback

Playing a disc

This section shows you the basics on how to play a disc.

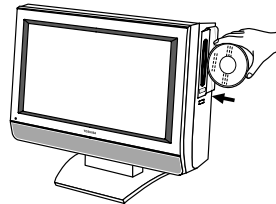
Basic playback

Preparations: When connecting to other equipment, turn the power off.

1. Press POWER on the unit or on the remote control to turn on the unit.
The Power indicator will light.
 - Every time you press POWER, the TV/DVD starts from TV mode.
 - When using an amplifier, switch on the amplifier.
2. Press TV/DVD on the remote control to select DVD mode.
The DVD startup screen will appear on the screen. (If DVD disc has already loaded, playback will start automatically.)



3. Load the disc in the disc slot with the label side facing forward. (If the disc has a label.) Hold the disc without touching either of its surfaces, align it with the guides, and place it in position.



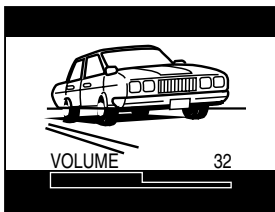
Note:

When you playback the 8cm disc, you need an adapter (not supplied).

4. On the TV screen, "No Disc" changes to "Reading" and then playback commences.



- A menu screen will appear on the TV screen, if the disc has a menu feature.
Press ▲/▼ or ◀▶ to select title, then press ENTER. Title is selected and play commences.
5. Press VOL + or - to adjust the volume.



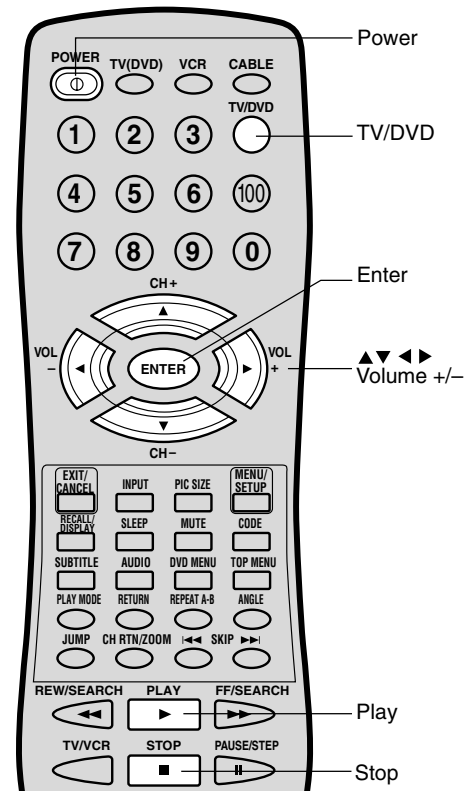
6. Press STOP to end playback.

Resume feature

- Depending on the disc you are playing, when you press STOP one time, the TV/DVD remembers the scene that was playing ("■" appears on screen). Press PLAY to resume playback from the stopped scene.
- If you press STOP again or eject the disc, the unit will clear the stopped scene ("■" appears on screen).

CAUTION

Keep your fingers well clear of the disc slot when disc is loading or unloading. Neglecting to do so may cause serious personal injury.







Note:


Static electricity may affect the DVD player's operation and cause it to not work properly. If this happens, turn OFF the POWER, disconnect and then reconnect the AC power cord, and turn ON the unit again.



About

The    icons on the heading bar show the playable discs for the function described under that heading.

 : You can use this function with DVD video discs.

 : You can use this function with Video CDs.

 : You can use this function with Audio CDs and CD-R/RW discs.

To start playback in the stop mode

Press PLAY.

To pause playback (still mode)

Press PAUSE during playback.

To resume normal playback, press PLAY.

- The sound is muted during still mode.

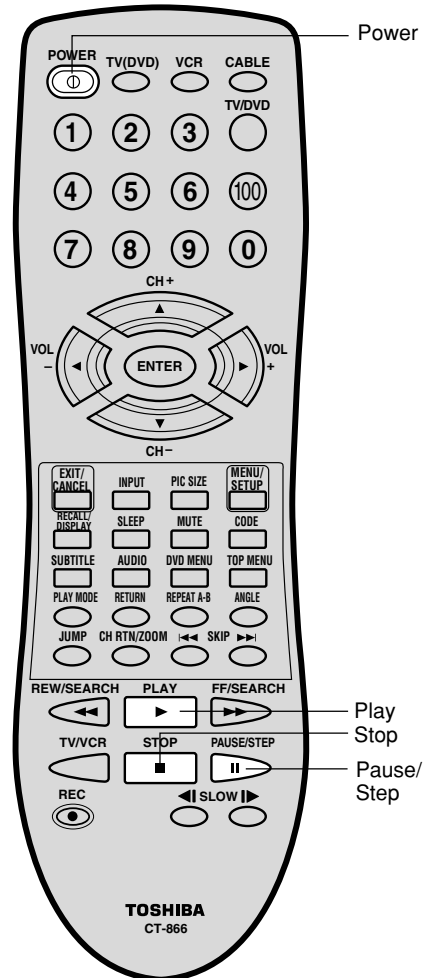
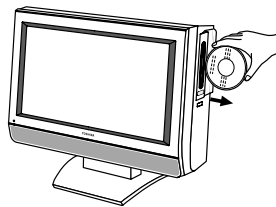
To stop playback

Press STOP.

To remove the disc

Press EJECT.

Remove the disc after the disc comes out.



Notes:

- If a non-compatible disc is loaded, "Incorrect Disc", "Region Code Error" or "Parental Error" will appear on the TV screen according to the type of loaded disc. In this case, check your disc again (see pages 8 and 60).
- Some discs may take a minute or so to start playback.
- If you insert a single-sided disc the wrong way, "Reading" will appear on the display for 30 seconds and then "Incorrect Disc" will continue to be displayed.
- Some discs may not resume playing the same scene after stopping.
- Resuming cannot function when you play a PBC-featured Video CD while the PBC is on. To turn off the PBC, see page 54.
- Some playback operations of DVDs may be intentionally fixed by software producers. Since this unit plays DVDs according to the disc contents the software producers designed, some playback features may not be available. Also refer to the instructions supplied with the DVDs.
- Do not move the unit during playback. Doing so may damage the disc.
- Use EJECT on the unit to unload and eject the disc. Do not push the disc while it is moving. Doing so may cause the unit to malfunction.
- Do not put any objects other than discs in the disc slot. Doing so may cause the unit to malfunction.
- When you press a button, there may be a slight delay before the function activates.

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Playing in fast reverse or fast forward directions

DVD VCD CD

Press REW or FF during playback.

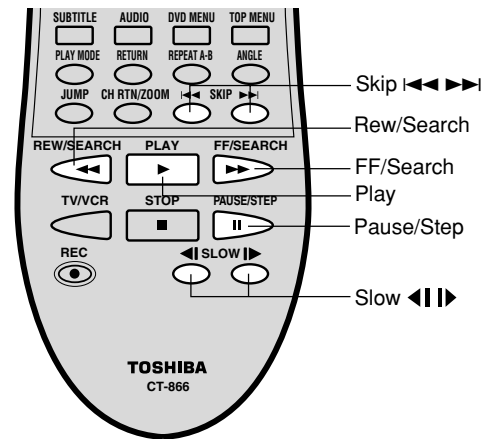
REW: Fast reverse playback

FF: Fast forward playback

Each time you press REW or FF, the playback speed changes.

To resume normal playback

Press PLAY.



Notes:

- The TV/DVD mutes sound and subtitles during reverse and forward scan of DVD video discs. However, the TV/DVD plays sound during fast forward or fast reverse play of audio CDs.
- The playback speed may differ depending on the disc.

Playing frame by frame **DVD VCD**

Press PAUSE during still playback.

Each time you press PAUSE, the picture advances one frame.

To resume normal playback

Press PLAY.

Playing in slow-motion **DVD VCD**

Press SLOW ◀ (REVERSE) or ▶ (FORWARD) during playback.

Each time you press the button, the slow-motion speed changes.

To resume normal playback

Press PLAY.

Locating a chapter or track **DVD VCD CD**

Press SKIP ◀◀ or ▶▶ repeatedly to display the chapter or track number you want.

Playback starts from the selected chapter or track.

SKIP ▶▶: To locate succeeding chapters or tracks.

SKIP ◀◀: Playback starts from the beginning of the current chapter or track. When you press twice in quick successions, playback starts from the beginning of the preceding chapter or track.

Note:

The sound is muted during frame by frame playback.

Notes:

- The sound is muted during slow-motion playback.
- The Video CD cannot play Reverse Slow.

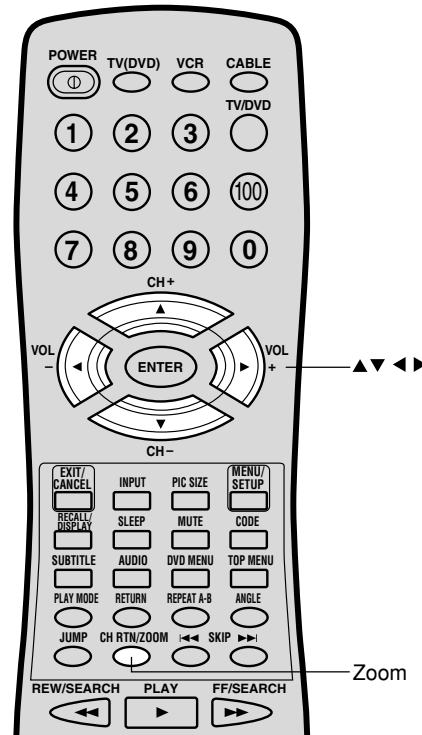
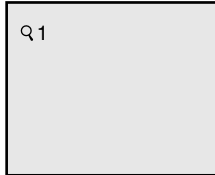
Note:

A "Prohibition" symbol 🚫 may appear at the upper left of the screen. This symbol means either the feature you tried is not available on the disc, or the TV/DVD cannot access the feature at this time. This does not indicate a problem with the TV/DVD.

Zooming DVD VCD

This unit will allow you to zoom in on the frame image. You can then make selections by switching the position of the frame.

1. Press ZOOM during playback.
The center part of the image will be zoomed in. Each press of ZOOM will change the ZOOM Q1 (x 1.3), Q2 (x 1.5) and Q3 (x 2.0).
2. Press ▲/▼/◀/▶ to view a different part of the frame.
You may move the frame from the center position to UP, DOWN, LEFT or RIGHT direction.
3. In the zoom mode press ZOOM repeatedly to return to a 1:1 view (Q Off).



Notes:

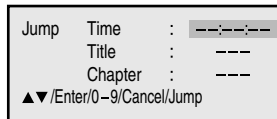
- You can select the Pause, Slow or Search playback in the zoom mode.
- Some discs may not respond to zoom feature.

Locating desired scene DVD VCD CD

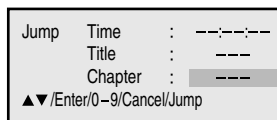
Use the title, chapter and time recorded on the disc to locate the desired point to play back.

To check the title, chapter and time, press DISPLAY.

1. Press JUMP during playback or stop mode.

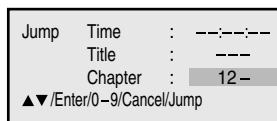


2. Press ▲ or ▼ to select the "Time", "Title" or "Chapter".

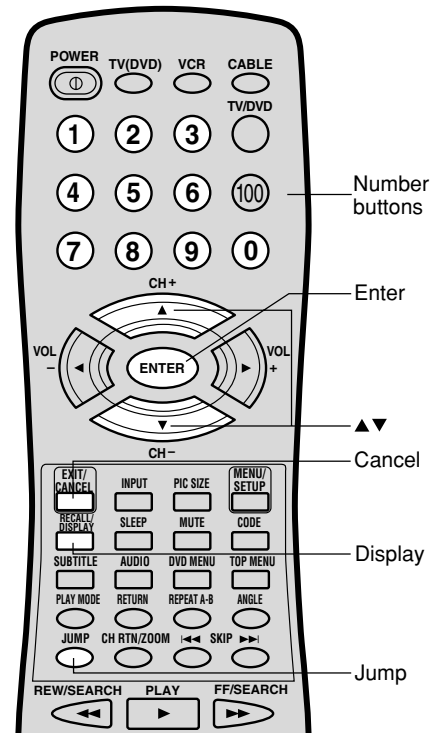


3. Press Number buttons (0-9) to change the number.

- If you input a wrong number, press CANCEL.
- Refer to the package supplied with the disc to check the numbers.



4. Press ENTER. Playback starts.
 - When you change the title, playback starts from Chapter 1 of the selected title.
 - Some discs may not work in the above operation.



Note:

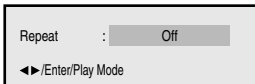
In case of the Video-CD playback with PBC, the JUMP does not work. To turn off PBC, see page 54.



Repeat playback (DVD VCD CD)

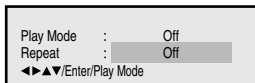
1. Press PLAY MODE during playback or stop mode.
2. [DVD]

Press ◀/▶ or ENTER once or twice to select "Chapter" or "Title".
The unit automatically starts repeat playback after finishing the current title or chapter.



[Audio CD, Video CD]

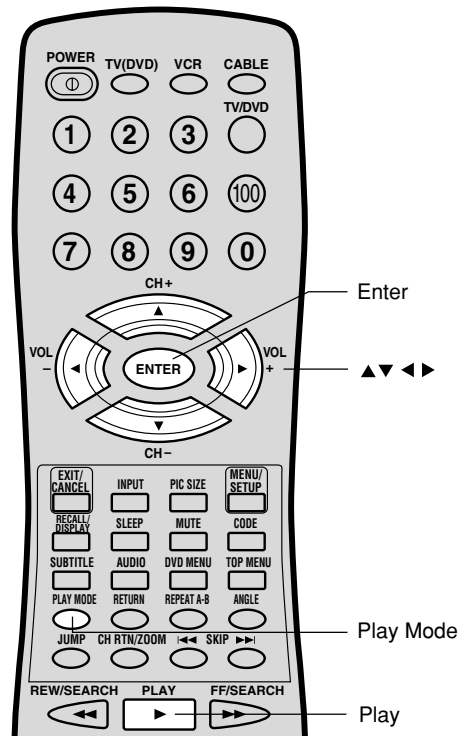
Press ▼ to select "Repeat".
Press ◀/▶ or ENTER once or twice to select "Track" or "All".
The unit automatically starts repeat playback after finishing the current track.
• If you set the repeat mode during stop mode, press PLAY to start Repeat playback.



3. Press PLAY MODE again to make the screen disappear.

To resume normal playback

Select Repeat : "Off" in step 2.



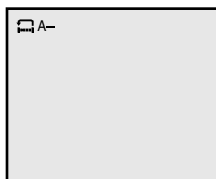
Notes:

- Some discs may not work with the repeat operation.
- In case of Video CD with PBC, repeat functions are prohibited during playback.

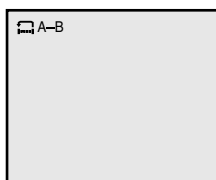
A-B Repeat playback (DVD VCD CD)

A-B repeat playback allows you to repeat material between two selected points.

1. Press REPEAT A-B during playback.
The start point is selected.



2. Press REPEAT A-B again.
The end point is selected. Playback starts at the point that you selected. Playback stops at the end point, returns to Point A automatically, then starts again.

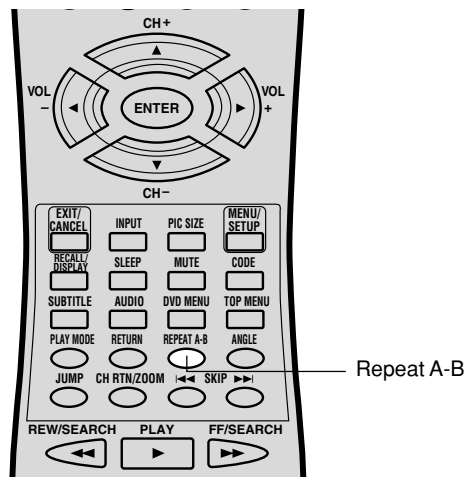


To resume normal playback

Press REPEAT A-B again.

"Off" appears on the screen.

DVD Playback



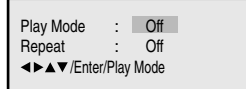
Notes:

- In A-B Repeat mode, subtitles near the A or B locations may not be displayed.
- You cannot set the A-B Repeat for the scenes that include multiple angles.
- A-B Repeat playback does not work when Repeat playback is activated.
- You may not be able to set A-B Repeat, during certain scenes of the DVD.
- A-B Repeat does not work with an interactive DVD, MP3/WMA/JPEG CD.
- A-B Repeat is prohibited when PBC is on.

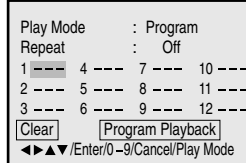
Program playback

You can arrange the playback order of tracks or files on the disc.

1. Press PLAY MODE in the stop mode.

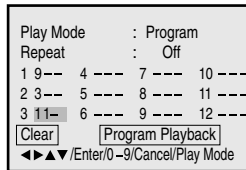


2. Press ▲ or ▼ to select Play Mode, then press ◀/▶ or ENTER to select "Program".



3. Press ▲/▼/◀/▶ to select the programming position. Use Number buttons (0-9) to input the Track or file numbers.

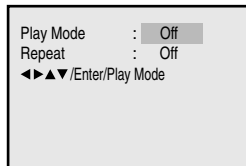
- To program others, repeat step 3.
- If you input a wrong number, press CANCEL.



4. Press ▲/▼/◀/▶ to select "Program Playback" and press ENTER.

The programs you selected will start to playback in the order.

- In case of JPEG file, press SKIP ►► to continue the program playback.
- To resume normal playback, select Play Mode: "Off" in step 2.



To change the program

1. In the program mode, press ▲/▼/◀/▶ to select the track number.
2. Press Number buttons (0-9) to select the track number to be replaced.

To clear the program one by one

In the program mode, press ▲/▼/◀/▶ to select the track number. Then press CANCEL.

To clear all the programs

In the program mode, press ▲/▼/◀/▶ to select "Clear". Then press ENTER.

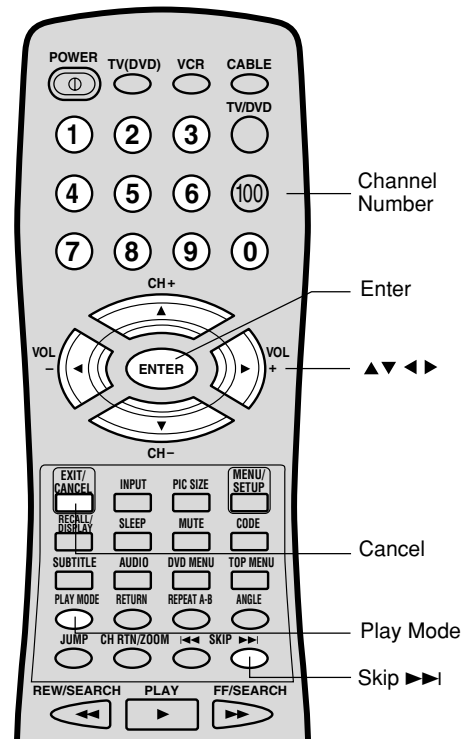
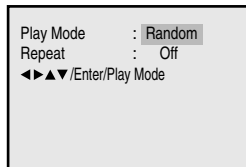
Random playback

The unit selects tracks or files at random and playback.

1. Press PLAY MODE during playback or stop mode.
2. Press ▲/▼ to select Play Mode, then press ◀/▶ or ENTER to select "Random".
3. Press PLAY.

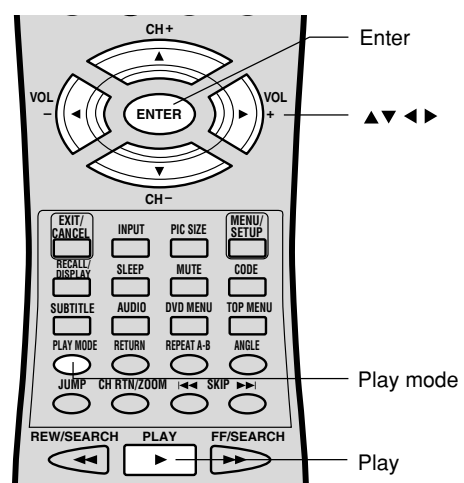
The Random Playback will start.

- If you set "Random" during playback mode, Random playback will begin after the track that is currently being played has ended.
- To resume normal playback, select Play Mode: "Off" in step 2.



Notes:

- In playing back the Video CD with PBC, you cannot set Program playback.
- The program is cancelled when you eject the disc or turn the power off.



Note:

In playing back the Video CD with PBC, you cannot set Random playback.

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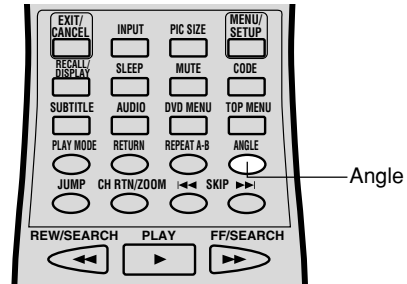
Changing angles (DVD)

When playing back a disc recorded with multi-angle facility, you can change the angle that you are viewing the scene from.

1. Press ANGLE during playback.
The current angle will appear.



2. Press ANGLE repeatedly until the desired angle is selected.



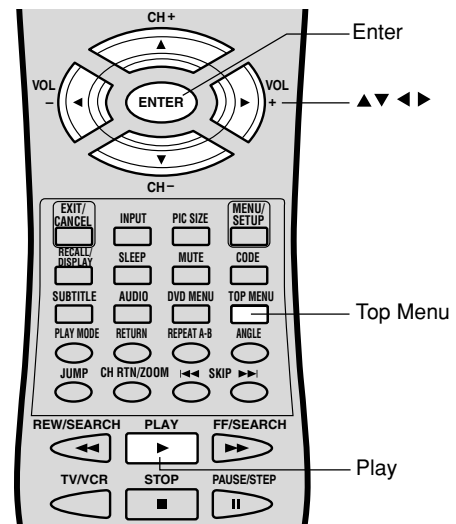
Note:

Depending on the DVD, you may not be able to change the angles even if multi-angles are recorded on the DVD.

Title selection (DVD)

Two or more titles are recorded on some discs. If the title menu is recorded on the disc, you can select the desired title.

1. Press TOP MENU during playback.
Title menu appears on the screen.
2. Press ▲/▼/◀/▶ to select the desired title.
3. Press ENTER or PLAY.
The playback of the selected title will start.



Note:

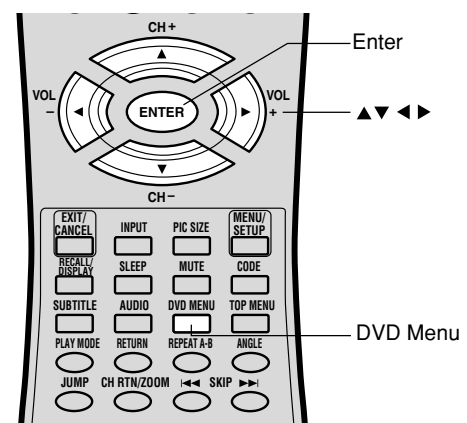
Depending on the DVD, you may not be able to select the title. Depending on the DVD, a "title menu" may simply be called a "menu" or "title" in the instructions supplied with the disc.

DVD menu (DVD)

Some DVDs allow you to select the disc contents using the menu. When you playback these DVDs, you can select the subtitle language and sound-track language, etc. using the menu.

1. Press DVD MENU during playback.
The DVD menu appears on the screen.
 - Press DVD MENU again to resume playback at the scene when you pressed DVD MENU.
2. Press ▲/▼/◀/▶ to select the desired item.
3. Press ENTER.
The menu continues to another screen. Repeat steps 2 and 3 to set the item completely.

DVD Playback



Note:

Depending on the DVD, you may not be able to resume playback from the scene point when you pressed DVD MENU.

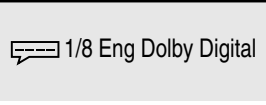
Changing soundtrack language

You can select the language when you play a multilingual disc.

1. Press AUDIO during playback.
The current soundtrack language will appear.

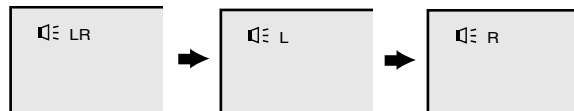


2. Press AUDIO repeatedly until the desired language is selected.
 - The on screen display will disappear after a few seconds.



In case of Video CD playback

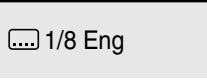
Audio type changes as follows each time you press AUDIO.



Subtitles

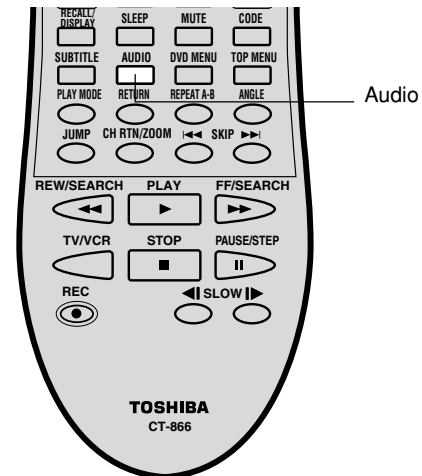
When playing back a disc recorded with subtitles, you can select the subtitle language or turn the subtitle off.

1. Press SUBTITLE repeatedly during playback until your desired language appears.



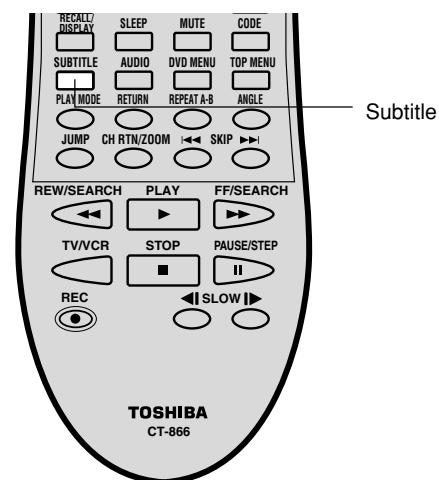
2. To turn off the subtitle, press subtitle until "Off" appears.
 - The on screen display will disappear after a few seconds.





Notes:

- If the desired language is not heard after pressing the button several times, the language is not recorded on the disc.
- Changing soundtrack language is cancelled when you eject the disc. The initial default language or available language will be heard if the disc is played back again.
- If you select DTS in playing DTS-encoded disc, no sound will be heard from the TV/DVD's speakers.



Notes:

- Depending on the DVD, you may not be able to change subtitles, or to turn subtitles on or off.
- While playing a DVD, the subtitle may change when you loaded or eject the disc.
- In some cases, a selected subtitle language may not be changed immediately.

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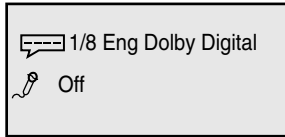
Karaoke playback

You can turn the vocal on or off recorded on the DVD KARAOKE.

1. During DVD KARAOKE disc playback, press AUDIO.

The KARAOKE symbol () appears.

- If you play non-Karaoke disc, the KARAOKE symbol () does not appear.
- Some Karaoke discs may not have the vocal on/off function. In this case, the KARAOKE symbol () does not appear.

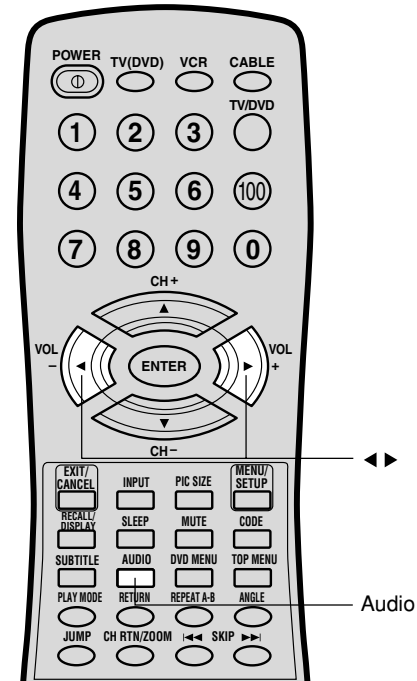
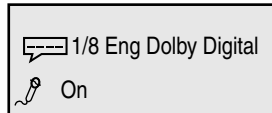


2. Press ◀ or ▶ to select "On" or "Off".

On : The primary vocal is output when it is recorded on the disc.

Off : The primary vocal is not output.

- The on screen display will disappear after a few seconds.



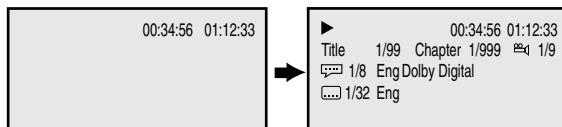
Notes:

- The vocal output feature is used during playback of Dolby Digital (multi-channel) recorded DVD KARAOKE discs. This feature allows you to turn off vocal audio tracks, or restore them for background accompaniment.
- When playing Karaoke, connect appropriate audio equipment such as an amplifier to the TV/DVD.

Disc status

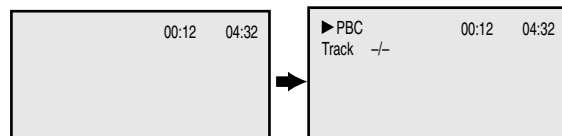
With each press of DISPLAY, the status of the disc will appear on the screen and change as follows.

DVD



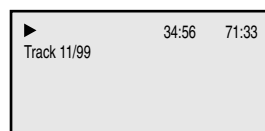
To make status display disappear, press DISPLAY again.

Video CD



To make status display disappear, press DISPLAY again.

Audio CD

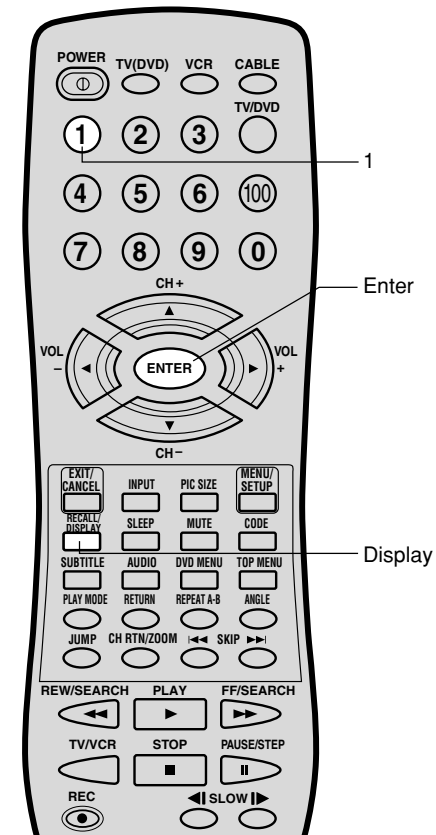


When you playback the CD disc, the status display will appear on the screen and continue displaying.

To turn off the PBC

Press number button 1 in the stop mode, then press ENTER.

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MP3/WMA/JPEG CD operation

This unit can play back MP3/WMA/JPEG-data which has been recorded on CD-R or CD-RW.

To produce MP3/WMA/JPEG-data, you need a Windows-PC with CD-R/RW drive and MP3/WMA/JPEG-encoding Software (not supplied).

Files recorded on an Apple® HFS (hierarchical file system) volume cannot be played.

MP3/WMA/JPEG CD information

Limitations on MP3/WMA/JPEG CD playback

- MP3/WMA/JPEG CDs must meet ISO9660 standards. Files must have one of the following extensions: .mp3, .wma, or .jpg.
- This unit can read 200 files per disc. If one directory has more than 200 files, the unit will read up to 200 files and any additional files will be ignored.
- The unit is able to recognize up to a maximum of 50 directories per disc.
- MP3/WMA/JPEG CDs cannot be used for the purpose of recording.
- If the CD has both audio tracks and MP3/WMA/JPEG files, only audio tracks are played.
- It may take more than one minute for this unit to read MP3/WMA/JPEG files depending on its structure.
- Music recorded by "Joliet Recording Specification" can be played back, the file name is displayed (within 16 letters) on the screen. Long file names will be condensed.
- Music files recorded on an Apple® HFS (hierarchical file system) volume cannot be played.

Limitations on display

- The maximum number for display is 16 letters.
Available letters for display are the following:
capital or small alphabets of A through Z, numbers of 0 through 9, and _ (under score).
- Other letters than those above are replaced in hyphen.

Notes on MP3/WMA/JPEG files

To play back MP3/WMA/JPEG CD in the recorded order,

1. Use MP3/WMA/JPEG software that records data alphabetically or numerically.
2. Name each file including two-digit or three-digit number (ex. "01" "02" or "001" "002").
3. Refrain from making too many sub-folders.

Notice:

- Some MP3/WMA/JPEG CDs cannot be played back depending on the recording conditions.
- The CD-R/RW that has no music data or non MP3/WMA/JPEG files cannot be played back.

Standard, sampling frequency, and the bit rate:

MP3 CD

MPEG-1 Audio

32kHz, 44.1kHz, 48kHz

32kbps ~ 320kbps (constant bit rate or variable bit rate)

The recommend recording setting for a high-quality sound is 44.1kHz of sampling frequency and 128kbps of constant bit rate.

WMA CD

WMA version 7, and 8

32kHz, 48kbps

44.1kHz, 48kbps ~ 192kbps

48kHz, 128kbps ~ 192kbps

The file recorded by mono, 48kHz, 48 kbps is not available to this unit.

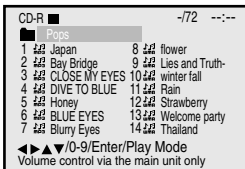
Apple is a registered trademark of Apple Computer, Inc.



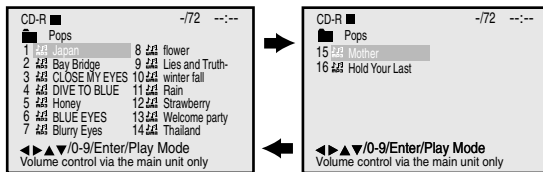
MP3/WMA CD playback

1. Load a disc on which MP3 or WMA files have been recorded in the disc slot.

2. A file menu screen will appear on the screen.
Press ◀/▶ or ENTER to select folder.



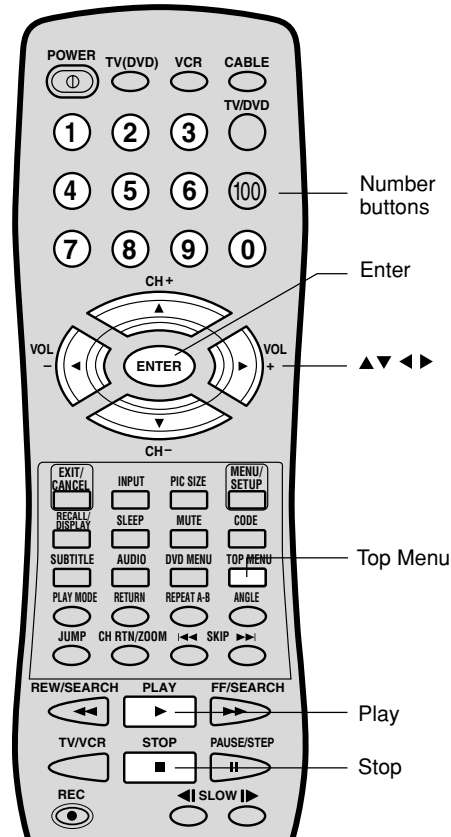
3. Press ▲/▼/◀/▶ or Number buttons (0-9) to select the desired file.
• In case the folder includes more than 15 files, press ◀ or ▶ to display next file list.



• When PLAY has been pressed after displaying the file menu, playback begins automatically starting from the first file. In this case, if the first file is an MP3/WMA file, only MP3/WMA files are played back in order. If the first file is a JPEG file, the first JPEG file is played back.

4. Press ENTER.
The selected file starts playing back.

5. Press STOP to end playback.
• The unit records the stopped point. "■" appears on the screen.
Press PLAY to resume playback (from the scene point).
• If you press STOP again or unload the disc, the unit will clear the stopped point.



Notes:

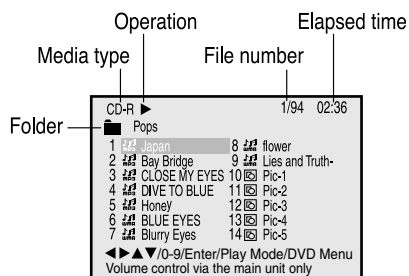
- During MP3/WMA/JPEG playback, you cannot use JUMP, A-B Repeat functions.
- You can use Repeat (Track or All), Random functions and Program playback for MP3/WMA/JPEG CD playback (see pages 50 and 51).
- In the case of a CD containing a mixture of MP3, WMA and JPEG files, the files are played back by selecting them from the file menu.
- During MP3/WMA playback, you can not adjust the volume level using the VOL +/- buttons on the remote. In this case, please use the VOLUME buttons on the unit.

Notes:

- The picture menu is displayed when the FUJICOLOR CD or the Kodak Picture CD are played. To display the file menu, press TOP MENU.
- In the case of a CD containing a mixture of MP3, WMA and JPEG files, the files are played back by selecting them from the file menu.
- MP3 or WMA file on the Kodak Picture CD is not recognized on this unit.

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About file menu



- : Indicates MP3 file
- : Indicates WMA file
- : Indicates JPEG file



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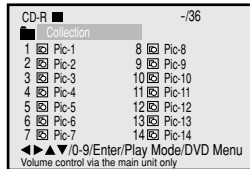
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JPEG CD playback

You can select your desired JPEG file on the file menu and picture menu. The selected JPEG file is automatically adjusted to the TV screen. (When the aspect ratio of a JPEG file is different from that of the TV screen, black bars may appear at the top, bottom, and/or sides of the screen.)

1. Load a disc on which JPEG files have been recorded in the slot.
2. A file menu screen will appear on the screen. Press to select folder.



3. Press or Number buttons (0-9) to select the desired file. To display a picture menu, press DVD MENU. (To return to a file menu, press TOP MENU.) Press to select the desired file.
 - To display next list, press SKIP .
 - When PLAY has been pressed after displaying the file menu, playback begins automatically starting from the first file. In this case, if the first file is a JPEG file, the first JPEG file is played back. If the first file is an MP3/WMA file, only MP3/WMA files are played back in order.



4. Press ENTER. The selected picture appears on the screen.

Rotating an image

You can rotate an image by 90 degrees by pressing ANGLE during playback of the image.

"", "", "", or "" appears briefly on the screen.

5. Press STOP to end playback. The file menu appears on the screen. If you want to watch the other file, repeat steps 3 ~ 4.

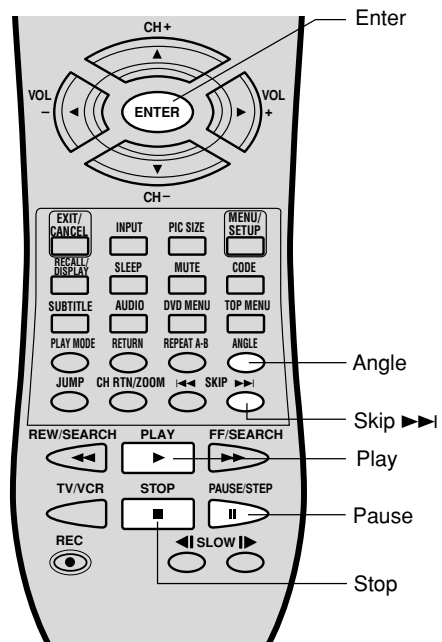
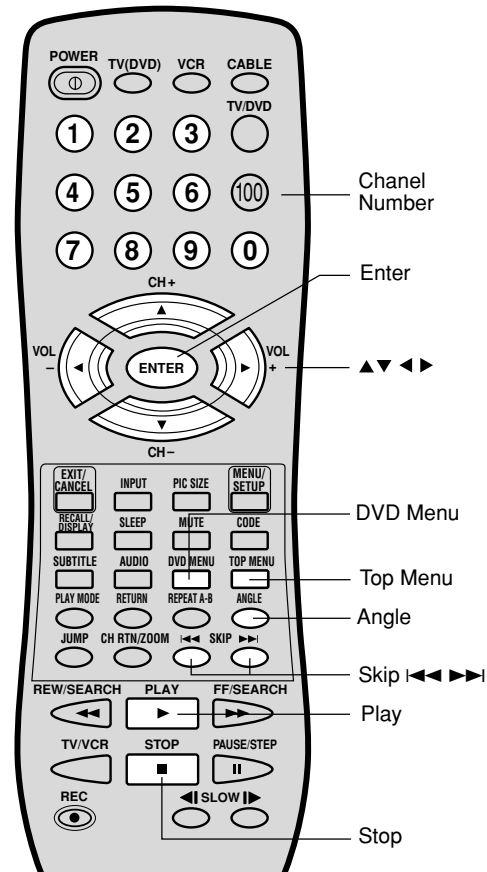
Slide show playback

The slide show enables you to view pictures (files) one after another automatically.

Preparation:

- Set "JPEG Interval" setting to "5 Seconds", "10 Seconds" or "15 Seconds". (See page 59.)

1. Select your desired starting file for the slide show in the step 3 on the above.
2. Press ENTER to start slide show from the selected file.
 - If you press PAUSE during the slide show, the slide show stops temporarily. "", "", "", or "" appears briefly on the picture. If the picture appears upside down or sideways, press ANGLE repeatedly until it's right side up. "", "", "", or "" appears briefly on the screen. Press PLAY or SKIP again to resume the slide show.
 - When slide show playback is finished, the file list appears.
 - To stop the slide show, press STOP. The file list appears.





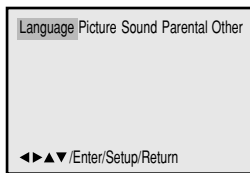
DVD function setup

Customizing the function settings

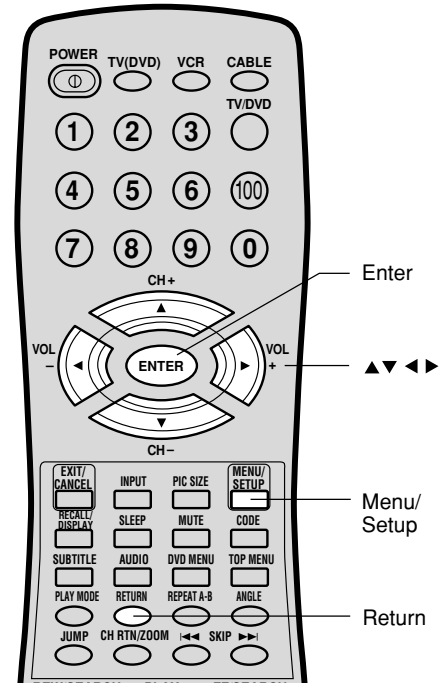
You can change the default settings of the DVD mode to customize performance to your preference.

Setting procedure

1. Press **SETUP** during stop mode.
The following on-screen display appears.



2. Press **◀** or **▶** to select the desired section, then press **▼** or **ENTER**.
3. Press **▲** or **▼** to select the desired option.
4. Change the selection using **▲/▼/◀/▶** or **ENTER** (see "Setting details" on page 59 and 60).
 - Repeat step 3 and 4 to change other settings.
 - Press **▲** to select another operation, go back to step 2.
5. To make **SETUP** screen disappear, press **SETUP** or **RETURN**.



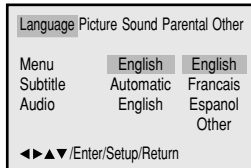
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Section	Option	Details	Page
Language	Menu	To select the language of "Menu", "Subtitle" and "Audio" if their languages are recorded on the disc in more than one language.	59
	Subtitle		
	Audio		
Picture	TV Screen	To select a picture size.	59
	Display	To turn on or deactivate the operational status display on the screen.	59
	JPEG Interval	To select a preferred setting for the slide show playback.	59
	Select Files	To select your desired file type for playing back a disc containing a mixture of MP3, WMA, and JPEG files.	59
Sound	DRC	To select On or Off for DRC (Dynamic Range Control).	60
Parental	Password	Input 4-digit password to set the parental level.	60
	Parental	To select a preferred parental level for the parental setting.	60
Other	OSD Language	To select a preferred language for on screen display.	60



Setting details

Language



Menu, Subtitle, Audio

You can select the language of “Menu”, “Subtitle” and “Audio” if more than one language is recorded onto the disc.

English, Francais, Espanol:

The selected language will be heard or seen.

Other:

Other language can be selected (see the “Language code list” page 62).

Original: (Audio)

The unit will select the first priority language of each disc.

Automatic: (Subtitle)

- The unit will automatically select the same language in the AUDIO setting.
- When the unit selects the same language as the AUDIO, the subtitles will not appear during playback.
- When you do not use the same language as the AUDIO, the subtitles will appear during playback.

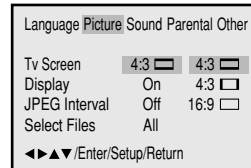
Off: (Subtitle)

Subtitles do not appear.

Note:

If the selected language is not recorded on the disc, the first-priority language is selected.

Picture



Tv Screen

You have the following screen sizes to choose from:

4:3 Letter box:

When playing back a wide screen-DVD disc, it displays the wide picture with black bands at the top and bottom of screen.

4:3 Pan scan:

It displays the wide picture on the whole screen with left and right edges automatically cut off.

16:9 Wide:

A wide screen picture is displayed full size.

Note:

If the DVD disc is not formatted in the pan & scan style, it displays 4:3 style.

Display

On screen display can be switched on or off when you press the buttons.

On: On screen displays appear when you press the buttons (factory setting).

Off: On screen displays do not appear when you press any buttons.

JPEG Interval

You can continuously play back all JPEG files automatically. After the setting below, start playing the disc on which JPEG files have been recorded.

Off:

Plays back one file at a time.

5 Seconds:

Plays back images in the form of a slide show at 5 second intervals.

10 Seconds:

Plays back images in the form of a slide show at 10 second intervals.

15 Seconds:

Plays back images in the form of a slide show in 15 second intervals.

Select Files

When playing back a CD containing a mixture of MP3, WMA and JPEG files, only MP3/WMA or JPEG files can be displayed on the file menu.

All:

Displays all files.

Music Only:

Displays only MP3/WMA files.

Pictures Only:

Displays only JPEG files.

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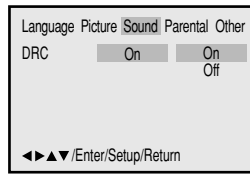
DVD Playback

Appendix



Setting details

Sound



DRC

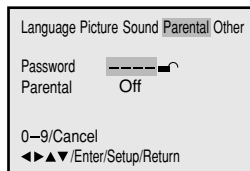
DRC (Dynamic Range Control) enables you to control the dynamic range so as to achieve a suitable sound for your equipment.

- On:** Loud sound such as explosion or similar is toned down slightly when played back. This makes it suitable for when it is connected to a stereo.
- Off:** It plays back at the recording level on the disc.

Notes:

- This function works only during playback of Dolby Digital recorded discs.
- The level of Dynamic Range Reduction may differ depending on DVD video disc.

Parental



Parental control setting

Some discs are specified not suitable for children. Such discs can be limited not to play back with the unit.

- Press ▲ or ▼ to select "Parental", then press ◀ or ▶ until the level you require appears.
 - Level Off: The parental control setting does not function.
 - Level 8: All DVD software can be played back.
 - Level 1: DVD software for adults cannot be played back.

Select from the level 1 to level 8. The limitation will be more severe as the level number is lower.

- Press ▲ or ▼ to select "Password". Press Number buttons (0–9) to input a 4-digit password. Be sure to remember this number!
 - If you input a wrong number, press CANCEL.
- Press ENTER to store the password.

Note: Now the rating is locked and the setting cannot be changed unless you enter the correct password.
- Press EJECT to activate parental control setting.

Notes:

- Depending on the discs, the unit cannot limit playback.
- Some discs may not be encoded with specific rating level information though its disc jacket says "adult." For those discs, the age restriction will not work.

To change the parental level

- Press ▲ or ▼ to select "Password".
- Press Number buttons (0–9) to enter the password you have stored.
- Press ENTER.
 - The rating is now unlocked.
- Press ▲ or ▼ to select "Parental", then press ◀ or ▶ to change the parental level.
- Press ▲ or ▼ to select "Password", then press Number buttons (0–9) to enter the password.

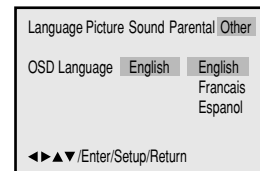
Note: You can change the password if you want.
- Press ENTER.

Now the parental level is changed and locked.

If you forget the password...

- Press EJECT.
- Remove the disc after the disc comes out.
- "No Disc" appears on the screen.
- While holding STOP down on the top of the unit, press 7 on the remote control. "PASSWORD CLEAR" appears on the screen.
- Enter a new password again.

Other



OSD Language

The setup language can be selected.

- English:** To display OSD language in English.
- Francais:** To display OSD language in French.
- Espanol:** To display OSD language in Spanish.

Note:

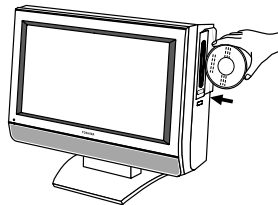
After completing the setup on pages 59 and 60, the settings will be retained in the memory (especially with DVD discs), even if you turn off the power.



Temporary disabling of rating level by DVD disc

Depending on the DVD disc, the disc may try to temporarily cancel the rating level that you have set. It is up to you to decide whether to cancel the rating level or not.

1. Load a DVD disc.

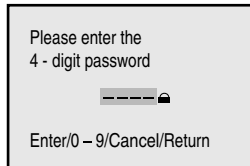


2. If the DVD disc has been designed to temporarily cancel the Rating level, the screen which follows the "Reading" screen will change, depending on which disc is played. If you select "YES" with the ENTER key, "Your disc exceeds the parental control level#." screen will then appear.

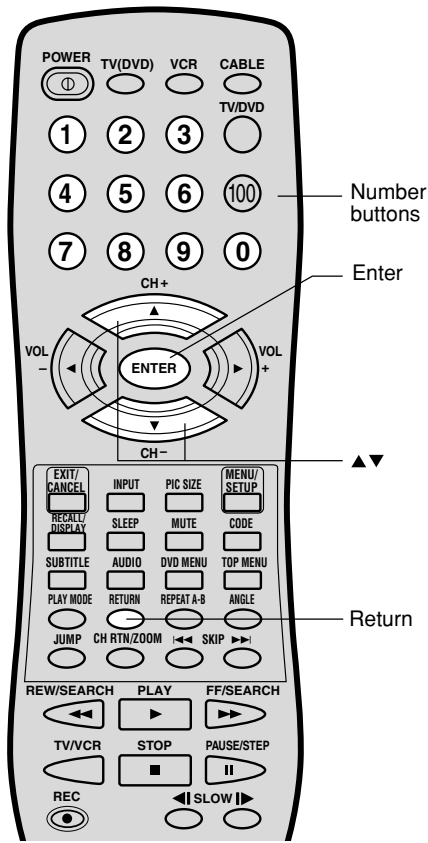


3. If you wish to cancel the set rating level temporarily, select "Parental Control Level" with ▲ or ▼, then press ENTER. If the 4-digit password at step 2 on page 60 has been set, the password entering screen will appear as shown in step 4. Alternatively, if the password has not been set, playback will commence. If you don't know (or have forgotten) the password, select "Cancel Picture". The setting screen will disappear. Press EJECT on the unit to remove the disc.

4. Enter the password with Number buttons (0-9). Then press ENTER. If you interrupt the entering, press RETURN.



5. Playback will commence if the entered password was correct.



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Note:
This temporary cancellation of rating level will be kept until the disc is ejected. When the disc is ejected, the original rating level will be set again automatically.



Appendix

Language code list

Enter the appropriate code number for the initial settings "Menu", "Subtitle" and/or "Audio." See page 59.

Language Name Code	Language Name Code	Language Name Code	Language Name Code
Abkhazian	1112	Fiji	1620
Afar	1111	Finnish	1619
Afrikaans	1116	French	1628
Albanian	2927	Frisian	1635
Amharic	1123	Galician	1722
Arabic	1128	Georgian	2111
Armenian	1835	German	1415
Assamese	1129	Greek	1522
Aymara	1135	Greenlandic	2122
Azerbaijani	1136	Guarani	1724
Bashkir	1211	Gujarati	1731
Basque	1531	Hausa	1811
Bengali; Bangla	1224	Hebrew	1933
Bhutani	1436	Hindi	1819
Bihari	1218	Hungarian	1831
Breton	1228	Icelandic	1929
Bulgarian	1217	Indonesian	1924
Burmese	2335	Interlingua	1911
Byelorussian	1215	Irish	1711
Cambodian	2123	Italian	1930
Catalan	1311	Japanese	2011
Chinese	3618	Javanese	2033
Corsican	1325	Kannada	2124
Croatian	1828	Kashmiri	2129
Czech	1329	Kazakh	2121
Danish	1411	Kirghiz	2135
Dutch	2422	Korean	2125
English	1524	Kurdish	2131
Esperanto	1525	Laothian	2225
Estonian	1530	Latin	2211
Faroese	1625	Latvian, Lettish	2232
Lingala	2224	Malagasy	2317
Lithuanian	2230	Malay	2329
Macedonian	2321	Malayalam	2322
Maltese	2330	Marathi	2328
Maori	2319	Moldavian	2325
Mongolian	2324	Nauru	2411
Nepali	2415	Norwegian	2425
Oriya	2528	Pashto, Pushto	2629
Panjabi	2611	Persian	1611
Pashto, Pushto	2629	Polish	2622
Persian	1611	Portuguese	2630
Polish	2622	Quechua	2731
Portuguese	2630	Rhaeto-Romance	2823
Quechua	2731	Romanian	2825
Rhaeto-Romance	2823	Russian	2831
Romanian	2825	Samoan	2923
Russian	2831	Sanskrit	2911
Samoan	2923	Scots Gaelic	1714
Sanskrit	2911	Serbian	2928
Scots Gaelic	1714	Serbo-Croatian	2918
Serbian	2928	Shona	2924
Serbo-Croatian	2918	Sindhi	2914
Shona	2924	Singhalese	2919
Sindhi	2914	Slovak	2921
Singhalese	2919	Slovenian	2922
Slovak	2921	Somali	2925
Slovenian	2922	Spanish	1529
Somali	2925	Sundanese	2931
Spanish	1529	Swahili	2933
Sundanese	2931	Swedish	2932
Swahili	2933	Tagalog	3022
Swedish	2932	Tajik	3017
Tagalog	3022	Tamil	3011
Tajik	3017	Tatar	3030
Tamil	3011	Telugu	3015
Tatar	3030	Thai	3018
Telugu	3015	Tibetan	1225
Thai	3018	Tigrinya	3019
Tibetan	1225	Tonga	3025
Tigrinya	3019	Turkish	3028
Tonga	3025	Turkmen	3021
Turkish	3028	Twi	3033
Turkmen	3021	Ukrainian	3121
Twi	3033	Urdu	3128
Ukrainian	3121	Uzbek	3136
Urdu	3128	Vietnamese	3219
Uzbek	3136	Volapük	3225
Vietnamese	3219	Welsh	1335
Volapük	3225	Wolof	3325
Welsh	1335	Xhosa	3418
Wolof	3325	Yiddish	2019
Xhosa	3418	Yoruba	3525
Yiddish	2019	Zulu	3631
Yoruba	3525		
Zulu	3631		



Troubleshooting

Before calling a service technician, please check the following table for a possible cause of the symptom and some solutions.

Symptom of TV	Solution
TV will not turn on	<ul style="list-style-type: none"> • Make sure the power cord is plugged in, then press POWER. • The remote control batteries may be dead. Replace the batteries.
No picture, no sound	<ul style="list-style-type: none"> • Check the antenna/cable connections.
No sound, picture OK	<ul style="list-style-type: none"> • The sound may be muted. Press VOLUME. • The station may have broadcast difficulties. Try another channel. • The MTS feature may be in SAP mode. Select STR or MONO in the MTS menu.
Poor sound, picture OK	<ul style="list-style-type: none"> • The station may have broadcast difficulties. Try another channel. • The MTS feature may be in SAP mode. Select STR or MONO in the MTS menu.
Poor picture, sound OK	<ul style="list-style-type: none"> • Check the antenna connections. • The station may have broadcast difficulties. Try another channel. • Adjust the PICTURE menu.
Poor reception of broadcast channels	<ul style="list-style-type: none"> • The station may have broadcast difficulties. Try another channel. • Check the antenna connections. • If you are using a video input, make sure the INPUT button is set correctly.
Cannot receive above channel 13	<ul style="list-style-type: none"> • Make sure TV/CABLE is set to CABLE mode.
Unable to select a certain channel	<ul style="list-style-type: none"> • The channel may be blocked by the V-Chip feature or CH LOCK feature, or erased with the add/erase feature.
Cannot access signal input sources (Video1, Video2, ColorStream HD, HDMI and PC) and/or Channels 3 and 4	<ul style="list-style-type: none"> • Check the VIDEO LOCK feature.
Multiple images	<ul style="list-style-type: none"> • The station may have broadcast difficulties. Try another channel. • Use a highly directional outdoor antenna.
Poor color or no color	<ul style="list-style-type: none"> • The station may have broadcast difficulties. Try another channel. • Adjust the TINT and/or COLOR in the PICTURE menu. • If you change the direction of the TV while it is turned on, the picture could suffer from color shading. If so, turn off the TV and allow it to cool for several hours before turning it on again.
Black box on screen	<ul style="list-style-type: none"> • Select OFF in the Closed Caption menu to turn off the Closed Caption Text mode.
No stereo or SAP sound from a known MTS broadcast	<ul style="list-style-type: none"> • Make sure the MTS feature is set properly (AUDIO menu).
The V-Chip password does not work (U.S. V-Chip system only)	<ul style="list-style-type: none"> • Change or reset your password.
The remote control does not operate	<ul style="list-style-type: none"> • Make sure the TV • CBL/SAT • VCR • DVD mode is set properly. • Remove all obstructions between the remote control and the TV. • The remote control batteries may be dead. Replace the batteries.
The top panel buttons do not operate	<ul style="list-style-type: none"> • Check the PANEL LOCK feature.

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Troubleshooting (continued)

Symptom of DVD

Solution

Playback doesn't start	<ul style="list-style-type: none"> No disc is loaded. The disc may be dirty. Clean the disc. The unit cannot play CD-ROMs, etc.
No picture	<ul style="list-style-type: none"> TV/DVD selector is not set correctly.
No sound	<ul style="list-style-type: none"> Make sure the input selector of the amplifier is set properly. The unit is in the special playback mode. Select the correct Audio Output/Input position on AV amplifier.
Picture is distorted during fast reverse/forward playback	<ul style="list-style-type: none"> The picture will be distorted occasionally.
Stopping playback, search, slow-motion play, repeat play, or program play, etc. cannot be performed	<ul style="list-style-type: none"> Some discs may not perform certain functions.
No on-screen display	<ul style="list-style-type: none"> Select Display On.
No surround sound	<ul style="list-style-type: none"> The setup does not match your stereo system.
The unit or remote operation key is not functioning	<ul style="list-style-type: none"> Turn off the unit and unplug the AC power cord for several minutes, then replug it.
Playback does not start when the title is selected	<ul style="list-style-type: none"> Check the RATING LEVEL setup.
Audio soundtrack and/or subtitle language is not changed when you play back a DVD	<ul style="list-style-type: none"> Multilingual language is not recorded on the DVD disc.
No subtitle	<ul style="list-style-type: none"> Some discs have no subtitles. Subtitles are cleared. Press SUBTITLE.
Angle cannot be changed	<ul style="list-style-type: none"> Multi-angles are not recorded on the DVD discs.
"⏏" appears on the screen	<ul style="list-style-type: none"> The function is prohibited with the unit or the disc.



Specifications

Notes:

- This model complies with the specifications listed below.
- Designs and specifications are subject to change without notice.
- This model may not be compatible with features and/or specifications that may be added in the future.

Television

LCD panel	23 inches (583.0 mm diagonal)(Screen size is approximate.)
Display method	Color TFT LCD
Number of pixels	1366 (Horizon) x 768 (Vertical)
Television system	NTSC standard
Tuner type	F-Synth
Channel coverage	VHF: 2 – 13 UHF: 14 – 69 Cable TV: 4A, A-5 – A-1, A-I, J – W, W+1 – W+84
Antenna input	VHF/UHF 75 ohm
Power source	120V AC, 60 Hz
Power consumption	110 W
Audio power	5.0 W + 5.0 W
Speaker type	1.8 x 3.9 inches (45.7 x 99.1 mm), 16 ohm x 2
Video/Audio terminals	S-VIDEO INPUT Y-INPUT: 1V (p-p), 75 ohm, negative sync., Mini DIN 4pin x 1 C-INPUT: 0.286V (p-p) (burst signal), 75 ohm VIDEO/AUDIO INPUT VIDEO: 1V (p-p), 75 ohm, negative sync., pin jack x 2 AUDIO: 150 mV (rms) (30% modulation equivalent, 47k ohm), pin jack (L/R) x 5 ColorStream® (component video) INPUT Y: 1V (p-p), 75 ohm P _R : 0.7V (p-p), 75 ohm P _B : 0.7V (p-p), 75 ohm AUDIO OUTPUT AUDIO: 150 mV (rms) (30% modulation equivalent, 47k ohm), pin jack (L/R) x 1 DIGITAL AUDIO OUTPUT (Coaxial) DVD mode only 0.5V (p-p), 75 ohm, pin jack (L/R) x 1 HEADPHONE Ø3.5mm stereo mini jack x 1 HDMI INPUT: HDMI compliant (type A connector) HDCP compliant E-EDID* compliant Suggested scan rates: 1080i, 480p, 480i, 720p HDMI Audio: 2-channel PCM 32/44.1/48 kHz sampling frequency 16/20/24 bits per sample PC Monitor Input Mini-Dsub 15pin x 1
Dimensions	Width: 24 inches (610 mm) Height: 19-1/16 inches (484 mm) Depth: 10-7/8 inches (276 mm)
Weight	25.4 lbs. (11.5 kg)
Supplied accessories	Remote control (CT-866) with two size "AAA" batteries 300-75 ohm matching transformer Owner's Manual (This booklet)

* E-EDID = Enhanced-Extended Display Identification.

DVD/CD Player

Signal system	NTSC
Applicable disc	1. DVD (12cm, 8cm [with Disc adapter]) 2. CD (12cm, 8cm [with Disc adapter])
Pickup	1-Lens, 2-Beams System

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Limited United States Warranty for LCD TV/DVD

Toshiba America Consumer Products, L.L.C. ("TACP") makes the following limited warranties to original consumers in the United States. **THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS LCD TV/DVD AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.**

PRODUCTS PURCHASED IN THE U.S.A. AND USED IN CANADA ARE NOT COVERED BY THESE WARRANTIES.

PRODUCTS PURCHASED IN CANADA AND USED IN THE U.S.A. ARE NOT COVERED BY THESE WARRANTIES.

Limited One (1) Year Warranty on Parts and Labor*

TACP warrants this LCD TV/DVD and its parts against defects in materials or workmanship for a period of one (1) year after the date of original retail purchase. **DURING THIS PERIOD, TACP WILL, AT TACP'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU FOR PARTS OR LABOR.** You must deliver the entire LCD TV/DVD to a TACP Authorized Service Station. You must pay for all transportation and insurance charges for the LCD TV/DVD to and from the TACP Authorized Service Station.

Rental Units

The warranty for rental units begins with the date of first rental or thirty (30) days from the date of shipment to the rental firm, whichever comes first.

*Limited Warranty for Commercial Units

LCD TV/DVD units sold and used for commercial purposes have a limited warranty for all parts and labor, which warranty begins on the date of original retail purchase and ends on the date that is ninety (90) days thereafter. **DURING THIS PERIOD, TACP WILL, AT TACP'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU.** You must deliver the entire LCD TV/DVD to a TACP Authorized Service Station. You must pay for all transportation and insurance charges for the LCD TV/DVD to and from the TACP Authorized Service Station.

Owner's Manual and Product Registration

Read this owner's manual thoroughly before operating this LCD TV/DVD.

Complete and mail the enclosed product registration card or register your product on-line at www.tacp.toshiba.com/service as soon as possible. By registering your product you will enable TACP to bring you new products specifically designed to meet your needs and help us to contact you in the unlikely event a safety notification is required under the Consumer Product Safety Act. Failure to complete and return the product registration card does not diminish your warranty rights.

Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must provide your bill of sale or other proof of purchase.
- (2) All warranty servicing of this LCD TV/DVD must be performed by an Authorized TACP Service Station.
- (3) These warranties from TACP are effective only if the LCD TV/DVD is purchased and operated in the U.S.A. or Puerto Rico.
- (4) Labor charges for installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by these warranties. Reception problems caused by inadequate antenna systems are your responsibility.

- (5) Warranties extend only to defects in materials or workmanship as limited above, and do not extend to any LCD TV/DVD or parts that have been lost or discarded by you or to damage to the LCD TV/DVD or parts caused by fires, misuse, accident, Acts of God (such as lightning or fluctuations in electric power), improper installation, improper maintenance, or use in violation of instructions furnished by TACP; use or malfunction through simultaneous use of this product and connected equipment; or to units that have been modified or had the serial number removed, altered, defaced, or rendered illegible.

How to Obtain Warranty Services

If, after following all of the operating instructions in this manual and checking the "Troubleshooting" section, you find that service is needed:

- (1) To find the nearest TACP Authorized Service Station, visit TACP's web site at www.tacp.toshiba.com/service or call toll free 1-800-631-3811.
- (2) Present your bill of sale or other proof of purchase to the Authorized Service Station.

**For additional information, visit TACP's web site:
www.tacp.toshiba.com**

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Limited Canada Warranty

LCD TV/DVD (from for 25" to 31" Television Models)

Toshiba of Canada Limited ("TCL") makes the following limited warranties to original consumers in Canada. THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS LCD TV/DVD AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.

PRODUCTS PURCHASED IN THE U.S.A. AND USED IN CANADA ARE NOT COVERED BY THESE WARRANTIES.

PRODUCTS PURCHASED IN CANADA AND USED IN THE U.S.A. ARE NOT COVERED BY THESE WARRANTIES.

Limited One (1) Year Warranty on Parts and Labor*

TCL warrants this LCD TV/DVD and its parts against defects in materials or workmanship for a period of one (1) year after the date of original retail purchase. DURING THIS PERIOD, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU FOR PARTS OR LABOR. YOU MUST DELIVER THE ENTIRE LCD TV/DVD TO AN AUTHORIZED TCL SERVICE DEPOT. YOU MUST PAY FOR ALL TRANSPORTATION AND INSURANCE CHARGES FOR THE TELEVISION TO AND FROM THE SERVICE DEPOT.

Rental Units

The warranty for rental units begins with the date of first rental or thirty (30) days from the date of shipment to the rental firm, whichever comes first.

*Limited Warranty for Commercial Units

TCL warrants LCD TV/DVD units sold and used for commercial purposes as follows: all parts are warranted against defects in materials or workmanship for a period of ninety (90) days after the date of original purchase. DURING THIS PERIOD, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU. YOU MUST DELIVER THE ENTIRE TELEVISION TO AN AUTHORIZED TCL SERVICE DEPOT. YOU MUST PAY FOR ALL TRANSPORTATION AND INSURANCE CHARGES FOR THE TELEVISION TO AND FROM THE SERVICE DEPOT.

Owner's Manual and Product Registration

Read this owner's manual thoroughly before operating this television.

Register your product online at www.toshiba.ca as soon as possible. By registering your product you will enable TCL to provide you with better customer service and improved product support. Failure to register your product does not diminish your warranty rights.

Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must provide your bill of sale or other proof of purchase.
- (2) All warranty servicing of this LCD TV/DVD must be performed by an Authorized TCL Service Depot.
- (3) These warranties from TCL are effective only if the LCD TV/DVD is purchased in Canada from an authorized TCL dealer and operated in Canada.
- (4) Labor charges for installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by these warranties. Reception problems caused by inadequate antenna systems are your responsibility.

- (5) Warranties extend only to defects in materials or workmanship as limited above, and do not extend to any television or parts that have been lost or discarded by you or to damage to the television or parts caused by fires, misuse, accident, Acts of God (such as lightning or fluctuations in electric power), improper installation, improper maintenance, or use in violation of instructions furnished by TCL; use or malfunction through simultaneous use of this product and connected equipment; or to units that have been modified or had the serial number removed, altered, defaced, or rendered illegible.

How to Obtain Warranty Services

If, after following all of the operating instructions in this manual and checking the "Troubleshooting" section, you find that service is needed:

- (1) To find the nearest TCL Authorized Service Depot, visit TCL's web site at www.toshiba.ca.
- (2) Present your bill of sale or other proof of purchase to the Authorized Service Depot.

For additional information, visit TCL's web site:
www.toshiba.ca

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